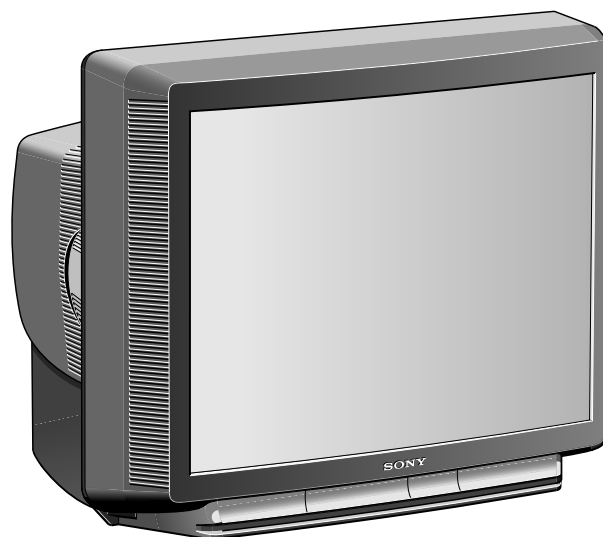


SERVICE MANUAL

BE-5 CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.	MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-21C4B	RM-836	French	SCC-K36D-A	KV-21X4A	RM-836	Italian	SCC-K31E-A
KV-21C4D	RM-836	AEP	SCC-K32F-A	KV-21X4B	RM-836	French	SCC-K36E-A
KV-21C4E	RM-836	Spanish	SCC-K30F-A	KV-21X4D	RM-836	AEP	SCC-K32G-A
KV-21C4K	RM-836	OIRT	SCC-K35H-A	KV-21X4E	RM-836	Spanish	SCC-K30G-A
KV-21C4R	RM-836	OIRT	SCC-K35G-A	KV-21X4K	RM-836	OIRT	SCC-K35K-A
				KV-21X4L	RM-836	Irish	SCC-K34B-A
				KV-21X4R	RM-836	OIRT	SCC-K35J-A
				KV-21X4U	RM-836	UK	SCC-K33C-A



TRINITRON® COLOR TV
SONY®

ITEM	MODEL	Television System	Channel Coverage	Colour System
Italian	B/G/H	VHF: E2-E12, UHF: E21-E69 Hyper: S1-S41		PAL NTSC3.58/4.43 (video input only)
French	B/G/H, D/K, L, I	L SECAM VHF: F2-F10 UHF: F21-F69 TV CABLE TV (1) VHF: B-Q UHF: S21-S44 PAL B/G/H VHF: E2-E12 UHF: E21-E69 CABLE TV (1) : S1-S41 CABLE TV (2) : S01-S05, M1-M10, U1-U10 ITALIA VHF: A-H, H1, H2 PAL I UHF: B21-B69 D/K VHF: R01-R20 UHF: B21-B69 CABLE TV VHF: S1-S41, UHF: S01-S05		PAL, SECAM NTSC3.58/4.43 (video input only)
AEP	B/G/H, D/K	B/G/H VHF: E2-E12 UHF: S1-S20 CABLE TV (1) : S1-S41 CABLE TV (2) : S01-S05, M1-M10, U1-U10 ITALIA VHF: A-H, H1, H2 D/K VHF: R01-R20 UHF: B21-B69 CABLE TV VHF: S1-S41, UHF: S01-S05		PAL, SECAM NTSC3.58/4.43 (video input only)
Spanish	B/G/H, D/K	PAL B/G/H VHF: E2-E12 UHF: E21-E69 CABLE TV (1) : S1-S41 CABLE TV (2) : S01-S05, M1-M10, U1-U10 ITALIA VHF: A-H, H1, H2 D/K VHF: R01-R20 UHF: B21-B69 CABLE TV VHF: S1-S41, UHF: S01-S05		PAL, SECAM NTSC3.58/4.43 (video input only)
OIRT	B/G/H, D/K	B/G/H VHF: E2-E12 UHF: E21-E69 CABLE TV (1) : S1-S41 CABLE TV (2) : S01-S05, M1-M10, U1-U10 ITALIA VHF: A-H, H1, H2 D/K VHF: R01-R12 UHF: R21-R69 CABLE TV VHF: S1-S41, UHF: S01-S05		PAL, SECAM NTSC3.58/4.43 (video input only)
Irish UK	I	Irish (KV-21X4L) VHF: A-C, D-J UHF: B21-B69 Cable Channels : S21-S41 Hyper: S1-S41 UK (KV-21X4U) UHF: B21-B69		PAL NTSC3.58/4.43 (video input only)


MODEL	21X4A	21C4B 21X4B	21C4D 21X4D	21C4E 21X4E	21C4K 21X4K	21X4L	21C4R 21X4R	21X4U
Power Consumption	70W	70W	70W	70W	70W	100W	70W	100W

SPECIFICATIONS





Picture Tube Super Trinitron
Approx. 55 cm (21 inches)
(Approx. 51 cm picture measured
diagonally)
100° -deflection

Rear/Front Terminals

[REAR]

-  1 21-pin Euro connector (CENELEC standard)
- Inputs for audio / video signals
- Inputs for RGB

[FRONT]

-  2, Video input - phono jack
-  Audio inputs - phono jacks
-  S video input - 4 pin DIN
-  Headphone jack - stereo minijack

Sound output
Left/Right 2x7W (RMS)
2x14W (music power)
Dimensions 652x433x488 mm approx.(KV-21C4)
517x444x485 mm approx.(KV-21X4)
Weight Approx. 21.5kg (KV-21C4)
Approx 22.5kg (KV-21X4)

Supplied accessories

- RM-836 Remote Commander (1)
- Batteries R6 (2)

Other features

- Fastext
- Txt/FLOF/TOP
- NICAM (KV-21C4B/21C4E)
(KV-21X4B/21X4E/21X4L/21X4U)


[RM-836]

Remote control system Infrared control
Power requirements 3V dc (2 batteries) R6 (size AA)
Dimensions Approx. 210x45x24 mm (w/h/d)
Weight Approx. 90g (Not including battery)

Design and specifications are subject to change without notice.

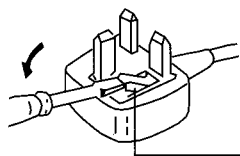
Item	Model name	KV-21X4A	KV-21C4B KV-21X4B	KV-21C4D KV-21X4D	KV-21C4E KV-21X4E	KV-21C4K KV-21X4K KV-21C4R KV-21X4R	KV-21X4L KV-21X4U
PIP		OFF	OFF	OFF	OFF	OFF	OFF
MPIP		OFF	OFF	OFF	OFF	OFF	OFF
Rotation Coil		OFF	OFF	OFF	OFF	OFF	OFF
VM (Velocity Modulation)		OFF	OFF	OFF	OFF	OFF	OFF
Scart 1		ON	ON	ON	ON	ON	ON
Scart 2		OFF	OFF	OFF	OFF	OFF	OFF
Front in (3)		ON	ON	ON	ON	ON	ON
AKB in 16:9 mode		OFF	OFF	OFF	OFF	OFF	OFF
TXT		ON	ON	ON	ON	ON	ON
FLOF		ON	ON	ON	ON	ON	ON
TOP		ON	ON	ON	ON	ON	ON
Norm B/G/H		ON	ON	ON	ON	ON	OFF
Norm I		OFF	ON	OFF	OFF	OFF	ON
Norm D/K		OFF	ON	ON	ON	ON	OFF
Norm L		OFF	ON	OFF	OFF	OFF	OFF
Language Preset		Italian	French	German	Spanish	OIRT	English

WARNING (KV-21X4U only)

The flexible mains lead is supplied connected to a **B.S. 1363** fused plug having a fuse of **5 AMP** capacity. Should the fuse need to be replaced, use a **5 AMP FUSE** approved by **ASTA** to **BS 1362**, ie one that carries the  mark.

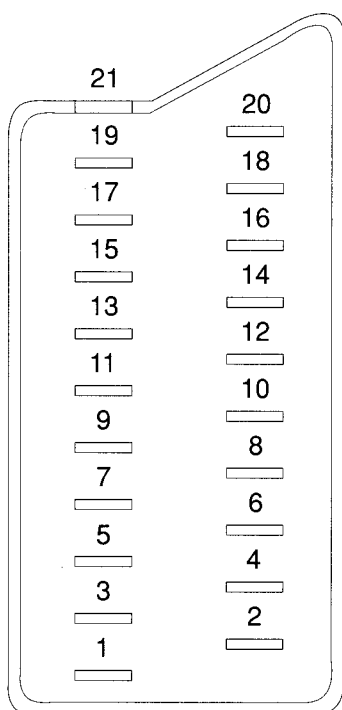
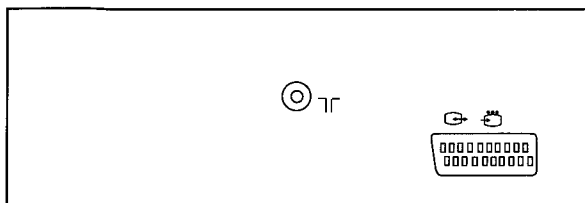
IF THE PLUG SUPPLIED WITH THIS APPLIANCE IS NOT SUITABLE FOR YOUR SOCKET OUTLETS IN YOUR HOME. IT SHOULD BE CUT OFF AND AN APPROPRIATE PLUG FITTED. THE PLUG SEVERED FROM THE MAINS LEAD MUST BE DESTROYED AS A PLUG WITH BARED WIRES IS DANGEROUS IF ENGAGED IN A LIVE SOCKET OUTLET.

When an alternative type of plug is used it should be fitted with a **5 AMP FUSE**, otherwise the circuit should be protected by a **5 AMP FUSE** at the distribution board.



FUSE

How to replace the fuse.
Open the fuse compartment with the screwdriver blade and replace the fuse.

21 pin connector ( 1)

Pin No.	1	2	4	Signal	Signal Level
1	○	○	○	Audio output B (Right)	Standard level : 0.5V rms Output impedance : Less than 1k ohms*
2	○	○	○	Audio input B (Right)	Standard level : 0.5V rms Output impedance : More than 10k ohms*
3	○	○	○	Audio output A (Left)	Standard level : 0.5V rms Output impedance : Less than 1k ohm*
4	○	○	○	Ground (Audio)	
5	○	○	○	Ground (Blue)	
6	○	○	○	Audio input A (Left)	Standard level : 0.5V rms Output impedance : Less than 10k ohm*
7	○	●	●	Blue input	0.7 ± 3dB, 75 ohms, positive
8	○	○	○	Function select (AV control)	High state (9.5 - 12V) : Part mode Low state (0 - 2V) : TV mode Input impedance : More than 10k ohms Input capacitance : Less than 2nF
9	○	○	○	Ground (Green)	
10	○	○	○	Open	
11	○	●	●	Green	
12	○	○	○	Open	
13	○	○	○	Ground (Red)	
14	○	○	○	Ground (Blanking)	
15	○	—	—	Red input	0.7 ± 3dB, 75 ohms, positive
	—	○	○	(S signal) chroma input	0.7 ± 3dB, 75 ohms, positive
16	○	●	●	Blanking input (Ys signal)	High state (1 - 3V) Low state (0 - 0.4V) Input impedance : 75 ohms
17	○	○	○	Ground (Video output)	
18	○	○	○	Ground (Video input)	
19	○	○	○	Video output	1V ± 3dB, 75ohms, positive sync : 0.3V (-3 + 10dB)
20	○	—	—	Video input	1V ± 3dB, 75ohms, positive sync : 0.3V (-3 + 10dB)
	—	○	○	Video input Y (S signal)	1V ± 3dB, 75ohms, positive sync : 0.3V (-3 + 10dB)
21	○	○	○	Common ground (plug, shield)	

○ Connected ● Not Connected (Open) * at 20Hz - 20kHz

Pin No.	Signal	Signal Level
1	Ground	
2	Ground	
3	Y (S signal) input	1V ± 3dB 75 ohm, positive Sync. 0.3V -3 + 10dB
4	C (S signal) input	0.3V ± 3dB 75ohm, positive Sync.

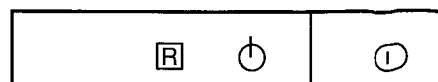
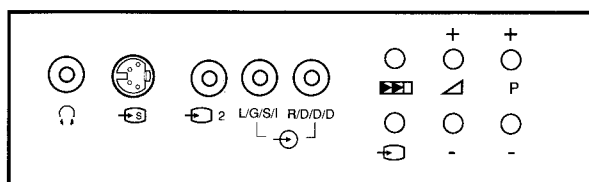


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CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING!!
COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND, IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.


ATTENTION

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTES SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

ATTENTION !!

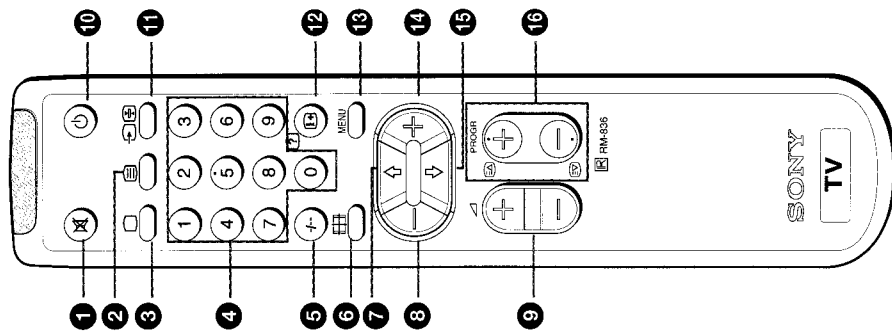
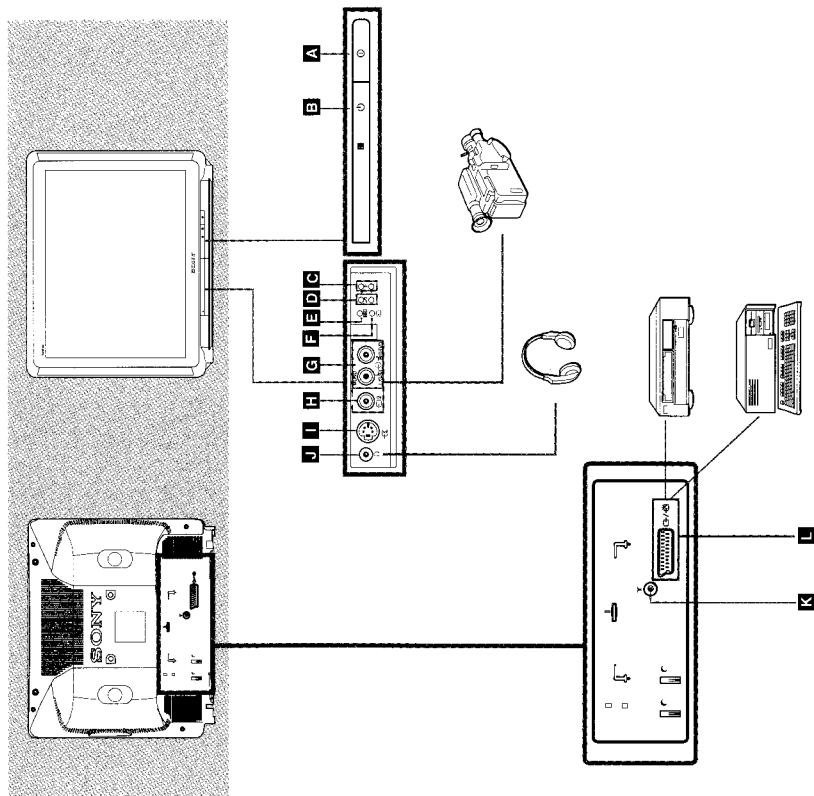
AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÂSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE. LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MARQUE  SUR LES VUES EXPLODÉES ET LES LISTES DE PIÈCES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÈCE EST INDiqué DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY.

The operating instructions mentioned here are partial abstracts from the Operating Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

SECTION 1 GENERAL

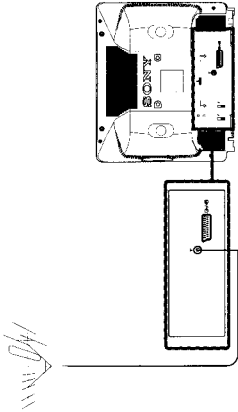


Getting Started

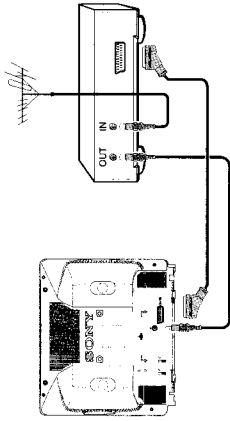
Please open the flaps at the front and at the back of the Instruction Manual for illustrations of the TV set and the Remote Commander. Letters in boxes refer to the buttons on the TV set, numbers in circles to the buttons on the Remote Commander.

Step 1: Connecting the Aerial

(If you connect a VCR, skip to step 2).
Connect an external aerial to the socket (K) at the rear of the TV.



Step 2: Connecting a VCR

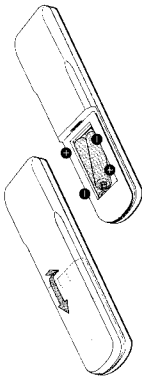


We recommend that you tune in the VCR signal to programme number "0". For details see "Presetting Channels Manually" on page 10.

Step 3: Connecting the Mains Plug

Connect the mains plug of the TV set to the electrical outlet (220-240 V AC, 50 Hz).

Step 4: Inserting the Batteries into the Remote Commander



Always remember to dispose of used batteries in an environmental friendly way.

Step 5: Remote Commander Overview

Refer to Symbol	Effect	Refer to Page
1	Sound on/off button	5
2	Teletext on button	14
3	TV button / TV power on	5
	Teletext off button	14
4 1...9,0	Number buttons	5
5	Double digit entering button	5
6	Screen Format	5
7, 8, 9, 10	MENU: Cursor buttons to operate Menu functions	6
	TELETEXT: Fastext buttons	14
11	Volume control	5
12	Standby button	5
13	Input mode button	15
	Teletext: Freezing the subpage	14
14	On screen display button	5
	Teletext: Reveal button	14
15 MENU	Menu on/off button	6
16	Programme buttons	5
	Teletext: Page up/down buttons	14

Step 6: Presetting Channels Automatically

TV searches for all available channels. If manual tuning is preferred see Menu option - Presetting Channels Manually (page 10).



1 Depress power switch **ⓐ** on TV set.

2 Press and hold **▶▶▶** **ⓔ** on TV set for 2 seconds. Auto tuning starts and screen shows.

• Channels are automatically stored as follows:

KV-21X4U KV-21X4L

Programme 1	BBC1	RTE1
Programme 2	BBC2	RTE2
Programme 3	ITV	BBC1
Programme 4	CH4 or S4C	BBC2
Programme 5	CH5 (if available in your area)	ITV
Programme 6	-	CH4 or S4C
Programme 7	-	CH5 (if available in your area)

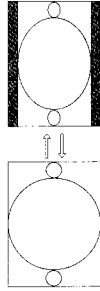
Note

- When Auto tuning stops, the programme position 1 is displayed.
- Programme names are automatically taken from Teletext if available. With that function, you can easily identify which channel you are watching.
- If you connect a VCR via the aerial cable, set the VCR to its test signal or play mode before auto-tuning.
- You may have to exchange the programme positions, if there are duplicated signals from local transmitters.

TV Operation



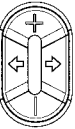


This section explains functions used whilst watching TV. Most operations are carried out using the Remote Commander (numbers in circles). All basic functions are also available on the TV set (letters in boxes).

To	Press
Switch on	• ⓐ A on TV
Switch off temporarily	• ⓑ TV is now in standby mode, indicator ⓐ on TV lights.
Auto Standby (only in TV mode): After 15 minutes without a TV signal and without pressing any button, the TV switches automatically into standby mode	
Switch on again	• ⓐ 3 PROGR +/- ⓐ C or any number button ⓐ
Switch off completely	• ⓐ A on TV To save energy we recommend switching off completely when TV is not in use.
Select programmes	• PROGR +/- ⓐ C or number buttons ⓐ For double digit numbers press +/- ⓐ then the number, e.g. for 23, press +/- ⓐ then 2 and 3.
Display the programme number	• ⓑ 12 Press again to make programme number disappear.
Adjust the volume	• ⓐ +/- ⓐ D
Mute the sound	• ⓐ 1 Press again to restore sound.
View video input	• ⓐ 11 F Press ⓐ 3 to return to TV programme.
View programmes in 16:9 mode	• ⓐ 6 Press again to return to 4:3 mode



Using the Menu Buttons











Use the following buttons on Remote Commander to control Menu screen.

- 1 Press MENU  to switch the Menu Screen on/off.
- 2 Use the coloured buttons as follows:
 - Red -  decrease/select
 - Yellow +  increase/confirm(OK)
 - Green  Scroll up
 - Blue  Scroll down

Note:
In case of error press MENU  twice and start again.









Using "Select Modes"

You can select different preset optimized picture and sound settings.








- 1 Press MENU .
- 2 Press yellow (OK)  to select  (Select Modes).
- 3 Press green  or blue  to select the desired mode:
 -  individual settings made in Picture and Sound Adjustments for video games
 -  for films
 -  for sports
 -  ecological (picture and brightness are set to optimal energy saving levels).
- 4 Press MENU  to return to normal TV screen.
The mode selected in step 3 is now stored.

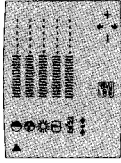
Adjusting the Picture and Sound

Although picture and sound are adjusted at the factory, you can adjust them to suit your own taste.









- 1 Press MENU .
- 2 Press green  or blue  to select  (Picture) or  (Sound) and press yellow  (OK).
- 3 Press green  or blue  to select the item you wish to change.

PICTURE CONTROL








Symbol	Item	-	Effect	+
	• Picture	Less	More	More
	• Colour	Less	More	More
	• Brightness	Darker	Brighter	
	• Sharpness	Softer	Sharper	
	• Hue control (only for NTSC video signals)	Reddish	Greenish	
	• Reset	Reset to factory preset picture level		
	• The respective symbol appears, indicating the picture and sound mode you selected.			



SOUND CONTROL

Symbol	Item	-	Effect	+
	• MONO/STEREO	A: channel 1 Stereo	B: channel 2 Mono	
	• Treble	Less	More	
	• Bass	Less	More	
	• Balance	More left	More right	
	• Headphones Volume	Less	More	
	MONO/STEREO	A: channel 1 Stereo	B: channel 2 Mono	
	• Reset	Reset to factory preset sound level		
	• The respective symbol appears, indicating the picture and sound mode you selected.			



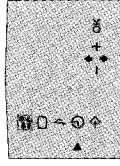
- 4 Press red  or yellow  to change levels.
- 5 Press MENU  to return to normal TV screen.
- **When receiving a NICAM or DUAL programme:**
 1. Nicam Stereo/Monoaural:  or  appears on the screen.
 2. Nicam bilingual/Dual:  or  appears on the screen.

Using the "Sleep Timer"

The TV may be set to switch to the standby mode automatically after a length of time chosen by you. You may set the time in 15 minutes steps up to 4 hours.

1 Press MENU **18**.

2 Press green **7** or blue **19** to select **⌚** and press yellow **14** to select **⌚** (Sleep Timer)



3 Press red **8** or yellow **14** to set time delay.
0:00 (OFF) 0:15 0:30 0:45 4:00



4 Press MENU **18** to return to normal TV screen.

Note:

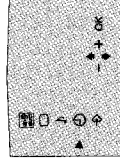
When watching TV, press **18** to display time remaining.

Using the "Wake Up Timer"

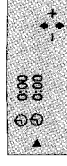
The TV may be set to switch on automatically after a length of time chosen by you. You may set the time in 15 minutes steps up to 12 hours.

1 Press MENU **18**.

2 Press green **7** or blue **19** to select **⌚** and press yellow **14** to select **⌚** (Wake Up Timer)



3 Press green **7** or blue **19** to select **⌚** (Wake Up Timer)



4 Press red **8** or yellow **14** to set time
0:00 (OFF) 0:15 0:30 0:45 12:00

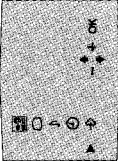
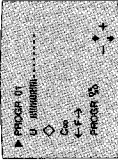
5 Press the standby button **⏻** (standby indicator **B** on the TV flashes regularly to indicate that the "Wake Up Timer" is active). After the length of time you selected, the TV switch on automatically.

Notes:

- If you use the "Wake Up Timer" to switch the TV on and for one hour after the switching on, no TV or Remote Commander button is pressed, the TV switches itself back into Standby mode and the indicator **B** on TV lights.
- Any temporary power failure will cause a misfunction in the "Wake Up Timer" and you will have to reset the "Wake Up Timer".

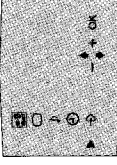
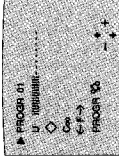
Presetting Channels Manually

Up to 100 programme positions are available for presetting channels.

- 1 Press MENU **13**.
- 2 Press green **7** or blue **15** to select \Rightarrow and press yellow (OK) **14**.

- 3 Select programme number using PROGR +/- **16** **17** or the number buttons **4**.

- 4 Press green **7** or blue **15** to select tuning bar (||||...) and press red **18** or yellow **19** to start channel search. When a channel is found the tuning bar stops moving and you see the picture.
- 5 If you want to store, press green **7** or blue **15** to select \diamond and press yellow (OK) **14**. If you don't want to store, press red **18** or yellow **19** to continue search.
- 6 Repeat steps 3 to 5 for all other channels.
- 7 Press MENU **13** to return to normal TV screen.

Skipping Programme Positions

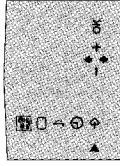
You can skip unused programme positions when selecting channels with the PROGR +/- **16** **17** buttons. You can still select them, however, using the number buttons **4**.

- 1 Press MENU **13**.
- 2 Press green **7** or blue **15** to select \Rightarrow and press yellow **14**.

- 3 Select programme number you want to skip using PROGR +/- **16** **17** or number buttons **4**.

- 4 Press green **7** or blue **15** to select Coo and press yellow (OK) **14**.
- 5 Press green **7** or blue **15** to select \diamond and press yellow (OK) **14** to store.
- 6 Repeat steps 3 to 5 for other unused programme positions.
- 7 Press MENU **13** to return to normal TV screen.

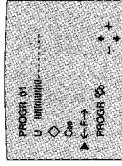
Fine-Tuning Channels

You can fine tune a stored channel.

- 1 Select the channel you wish to fine tune.
- 2 Press MENU **13**.
- 3 Press green **7** or blue **15** button to select $\hat{\curvearrowright}$ and press yellow (OK) **14**.



- 4 Press green **7** or blue **15** to select $\leftarrow F \rightarrow$ and use red **8** or yellow **12** to adjust tuning.



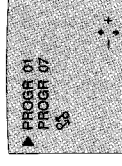
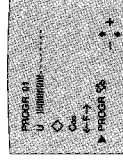
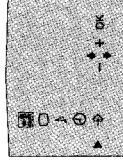
- 5 Press green **7** or blue **15** to select \diamond and press yellow (OK) **14** to store.

- 6 Press MENU **13** to return to normal TV screen.

Exchanging Programme Positions

After tuning you may wish to rearrange the programme positions.

- 1 Press MENU **13**.
- 2 Press green **7** or blue **15** button to select $\hat{\curvearrowright}$ and press yellow (OK) **14**.
- 3 Press green **7** or blue **15** to select PROG **01** and press yellow (OK) **14**.
- 4 Press red **8** or yellow **12** to select the first programme position.
- 5 Press the blue **15** button.
- 6 Press red **8** or yellow **12** to select the second programme position.
- 7 Press blue **15** to select $\hat{\curvearrowright}$ and press yellow (OK) **14** to exchange.
- 8 Repeat steps 4 to 7 for other programme positions.
- 9 Press MENU **13** to return to normal TV screen.



Viewing Teletext

Teletext is an information service broadcast by most TV stations.

- 1 Select the channel which carries the teletext service you wish to receive.
- 2 Press **[2]** to switch on teletext.
- 3 Input three digits for the page number using the programme number buttons **[4]** or **[2]/[3]** **[6]** (next or previous page).
- 4 Press **[3]** to switch off teletext.

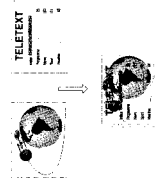
Note:

Teletext errors may occur if the broadcasting signals are weak.

Using Other Teletext Functions

Superimposing teletext on the TV

Press **[2]** once in teletext mode or twice in TV mode to superimpose teletext on the TV screen.
Press **[2]** again to cancel superimposing.



Freezing a teletext subpage

Press **[1]** (HOLD) to freeze the subpage. Freezing the page prevents the information that is displayed from being updated.
Press **[1]** to cancel HOLD and allow update to continue.

Revealing concealed information (eg: answers to a quiz).

Press **[2]** **[6]** to reveal information.
Press again to conceal the information.

Using colour buttons to access pages (Fastext)

When the colour coded menu appears at the bottom of a page, press the colour button (green, red, yellow or blue) **[7]** **[8]** **[9]** **[6]** to access the corresponding page.

Connecting Optional Equipment

There is a wide range of optional equipment you can connect to your TV. Refer to the illustrations on the back flap page of this manual.

Symbol Acceptable input signals

- Normal audio/video and S video through the phono jacks.
- Normal audio/video and RGB through Euro AV connector.

Note: Make sure not to switch on the equipments connected to the front connectors **[2]** **[3]** and **[4]** at the same time.

Selecting the Input

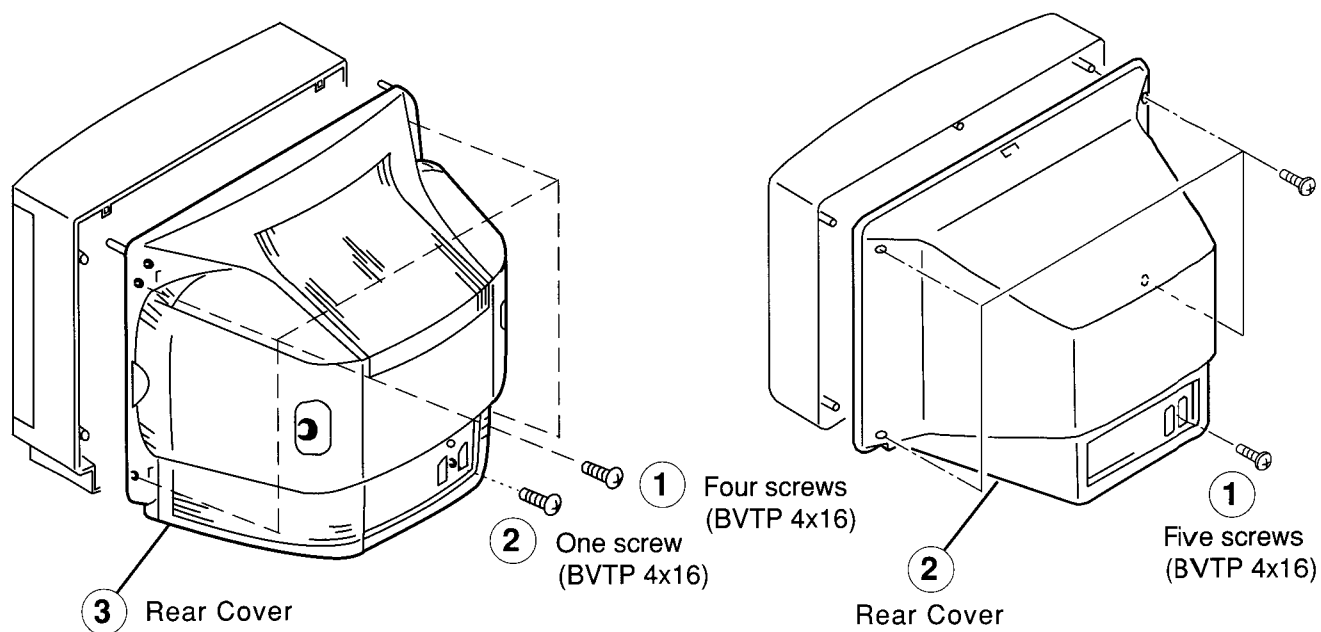
Press **[1]** **[2]** repeatedly to select the desired video source.
Press **[3]** to return to normal TV operation.

Connecting Headphones

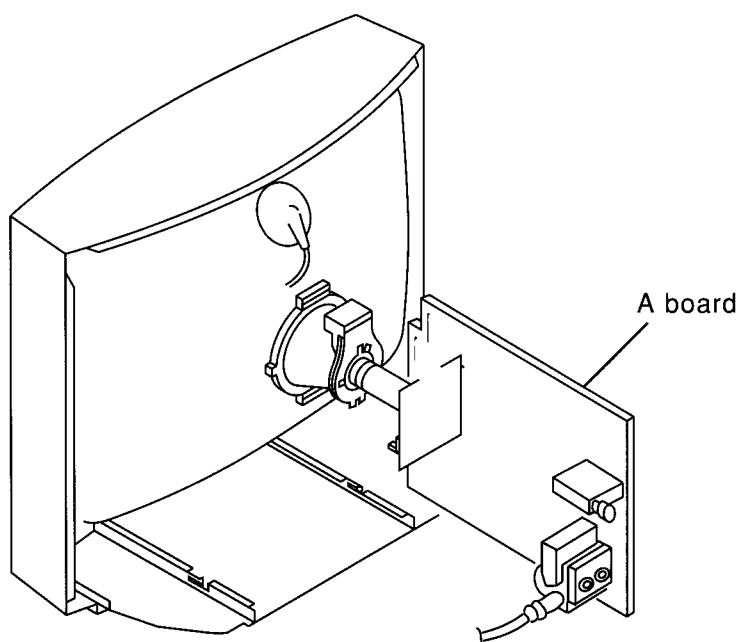
Plug in the headphones to the **[1]** socket on the front of the TV set.

SECTION 2 DISASSEMBLY

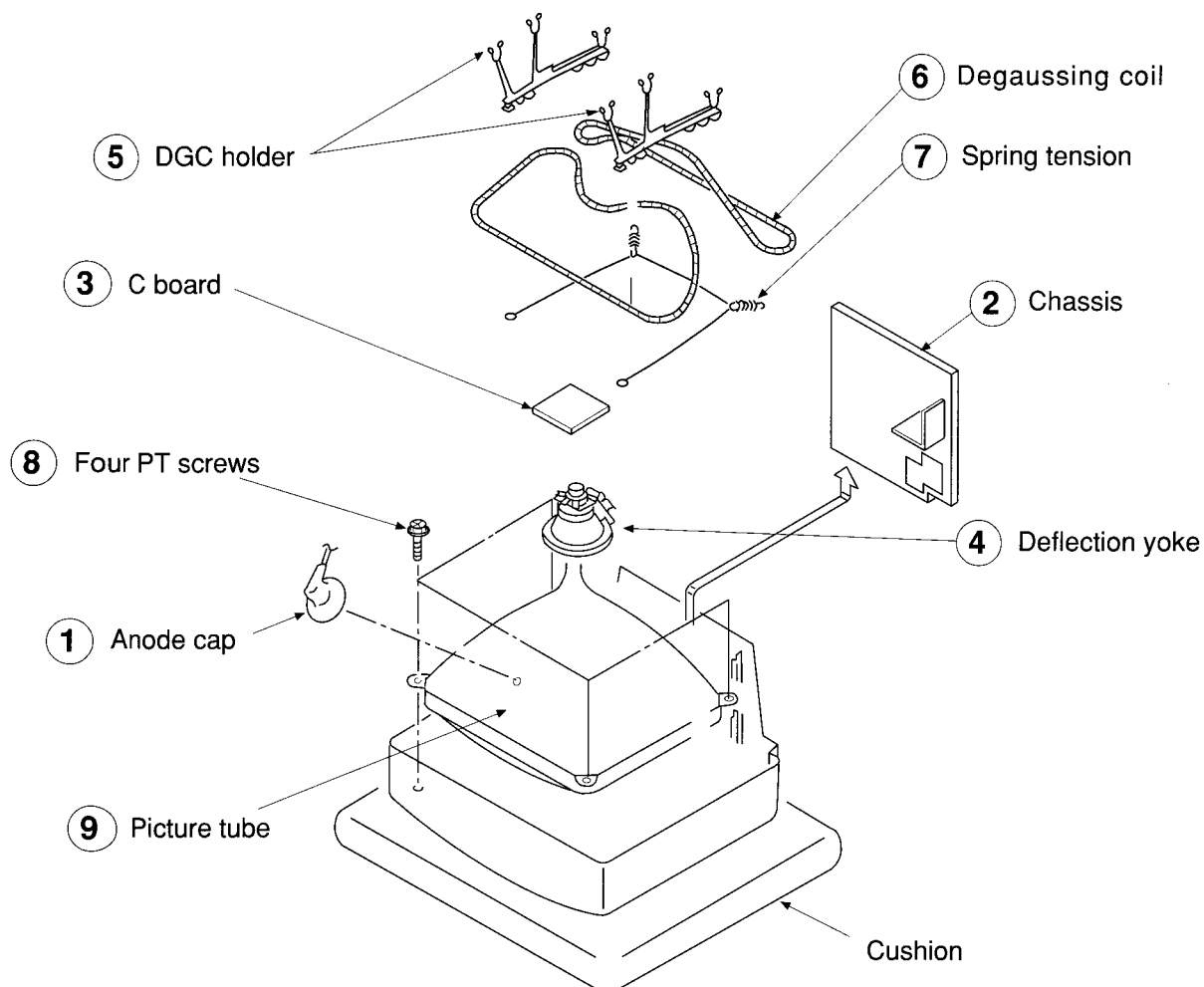
2-1. REAR COVER REMOVAL



2-2. SERVICE POSITION



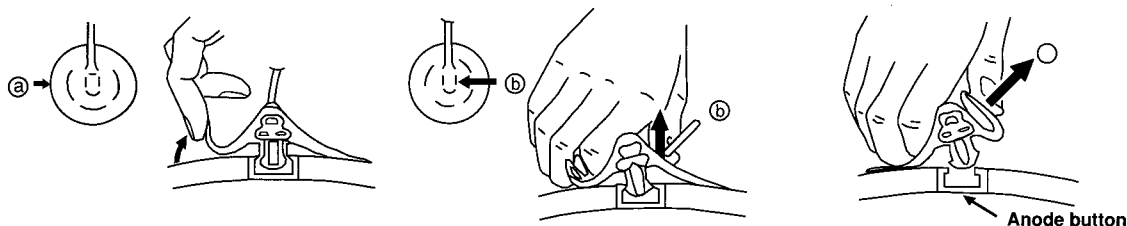
2-3. PICTURE TUBE REMOVAL



• REMOVAL OF ANODE-CAP

Note: Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.

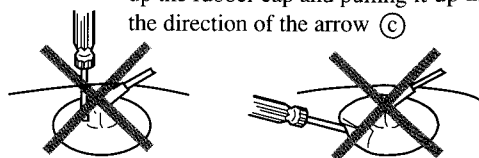
* REMOVING PROCEDURES.



- ① Turn up one side of the rubber cap in the direction indicated by the arrow (a)
- ② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow (b)
- ③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow (c)

• HOW TO HANDLE AN ANODE-CAP

- ① Don't damage the surface of anode-cap with sharp shaped material !
- ② Don't press the rubber hardly not to hurt inside of anode-caps !
A metal fitting called as shatter-hook terminal is built into the rubber.
- ③ Don't turn the foot of rubber over hardly !
The shatter-hook terminal will stick out or damage the rubber.



SECTION 3

SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with the rated power supply voltage, unless otherwise noted.

The Contrast and Brightness controls should be set as follows unless otherwise noted:

CONTRAST control 80%
(or Normal by commander)
BRIGHTNESS control 50%

Perform the adjustments in the following order:

1. Beam Landing
2. Convergence
3. Screen (G2), Drive, White Balance, Sub Colour and Sub Brightness.
4. Focus

Note: Test Equipment Required.

1. Colour bar/Pattern Generator
2. Degausser
3. DC Power Supply
4. Digital multimeter
5. Oscilloscope

Preparation:

- In order to reduce the influence of external magnetic forces on the picture tube, face the TV set in an easterly or westerly direction.
- Turn the power switch for the unit ON and erase the magnetic force using a degausser.

3-1. BEAM LANDING

Demagnetize with a degausser.

1. Input an all white raster signal from the pattern generator.
CONTRAST } normal
BRIGHTNESS }
2. Switch the raster signal of the pattern generator to Red.
3. Move the deflection yoke backward, and adjust with the purity control so that Red is at the centre and the Blue and Green are evenly spaced at the sides. see (Fig. 3-1 - 3-3)
4. Move the deflection yoke forward, and adjust so that the entire screen becomes Red. (Fig. 3-1)
5. Switch the raster signal to Blue and then Green to confirm the condition.
6. When the position of the deflection yoke has been determined, tighten it with the deflection yoke mounting screw.
7. When the landing at the corners is not correct, adjust by using disk magnets. (Fig. 3-4)

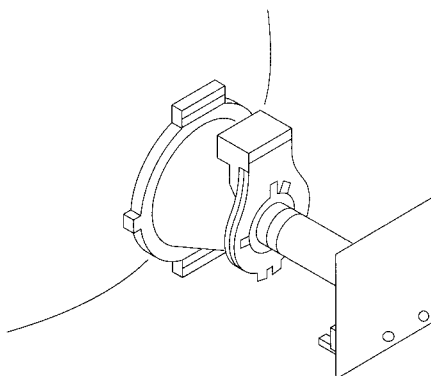


Fig. 3-1

Fig. 3-2

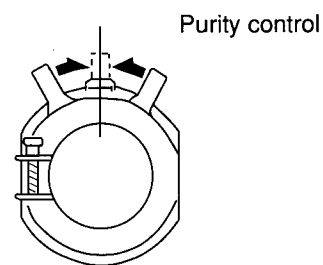


Fig. 3-3

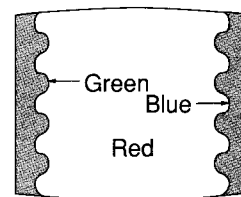
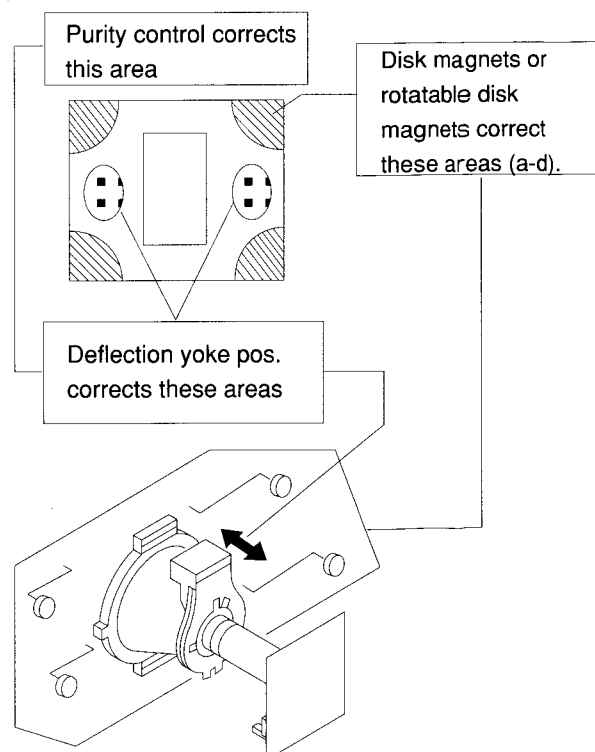


Fig. 3-4

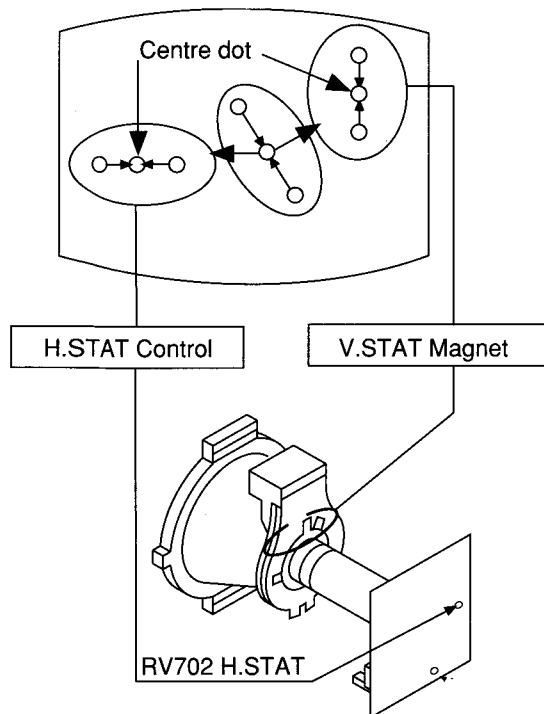


3-2. CONVERGENCE

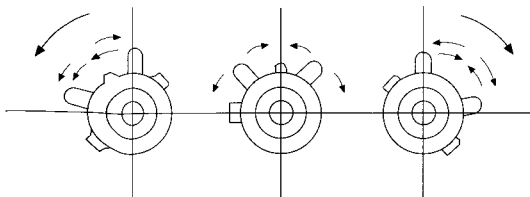
Preparation:

- Before starting, perform FOCUS, H.SIZE, and V.SIZE adjustments.
- Set the BRIGHTNESS control to minimum.
- Input a dot pattern from the pattern generator.

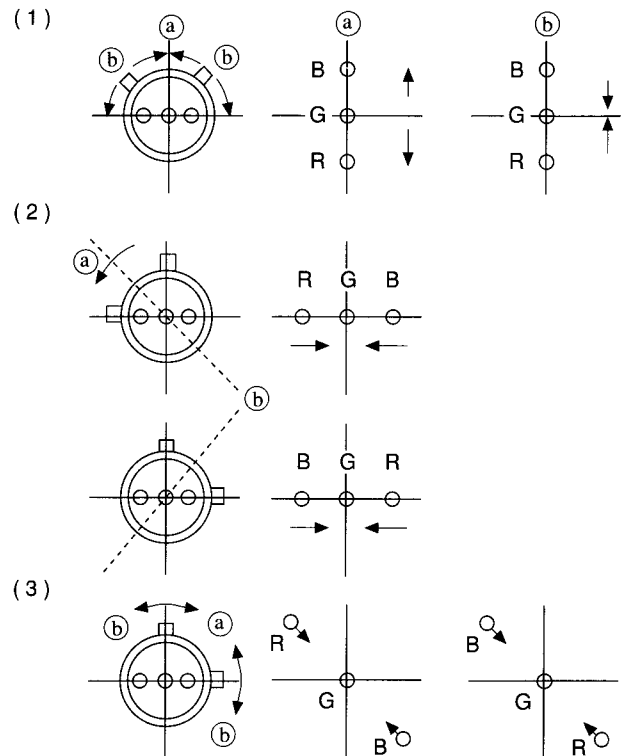
(1) Horizontal and Vertical Static Convergence



1. Adjust the H.STAT control to converge the Red, Green and Blue dots at the centre of the screen. (Horizontal movement)
 2. Adjust the V.STAT magnet to converge the Red, Green and Blue dots at the centre of the screen. (Vertical movement)
- If the horizontal dots cannot coincide with variable range of the H.STAT convergence, adjust together with the V.STAT convergence while tracking.
(Adjust the convergence by tilting the V.STAT convergence or by opening or closing the V.STAT convergence.)



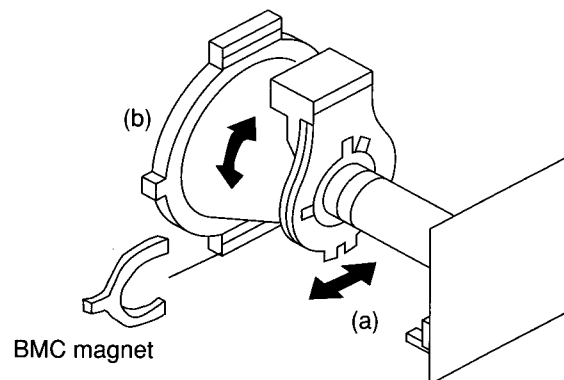
3. When the V.STAT magnet is moved in the direction of the (a) and (b) arrows, the Red, Green and Blue dots move as shown below.



If the Red and Blue dots do not converge with the Green dots, perform the following steps.

1. Move the BMC magnet (a) to correct for insufficient H.static convergence.
2. Rotate the BMC magnet (b) to correct for insufficient V.static convergence.

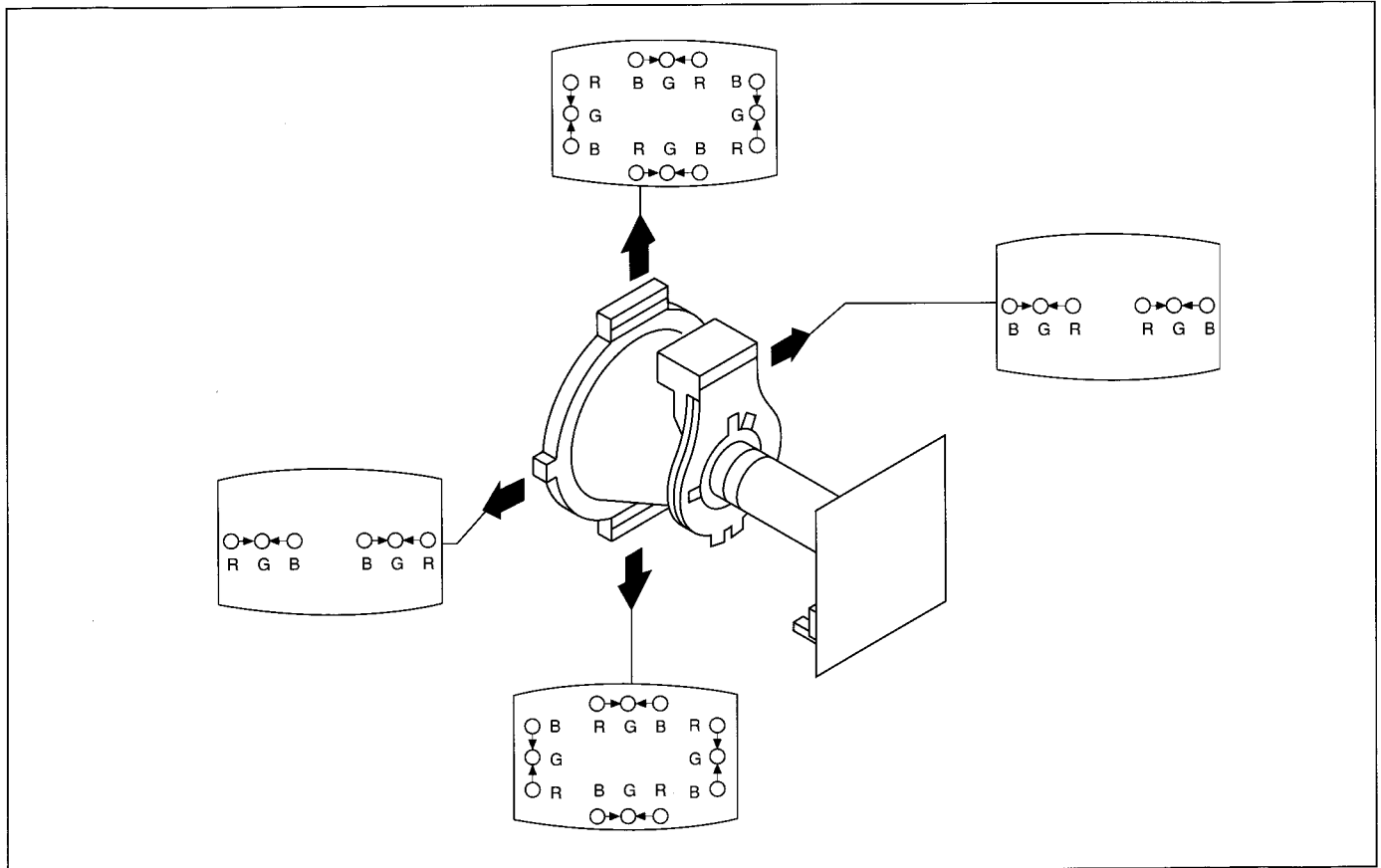
In either case, repeat the Beam Landing Adjustment.



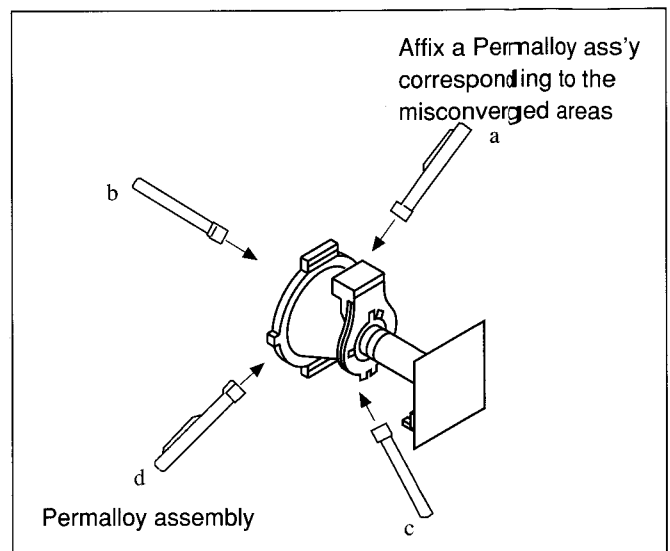
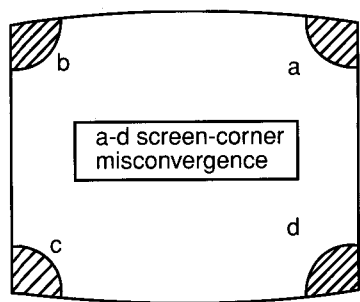
(2) Dynamic Convergence Adjustment

Preparation:

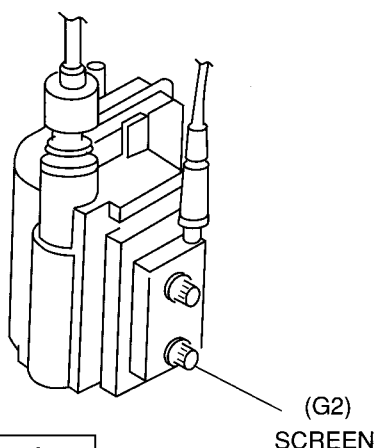
- Before starting, perform the Horizontal and Vertical static convergence adjustment.
1. Slightly loosen the deflection yoke screw.
 2. Remove the deflection yoke spacers.
 3. Move the deflection yoke for best convergence as shown below.
 4. Tighten the deflection yoke screw.
 5. Install the deflection yoke spacers.



(3) Screen-corner Convergence.



3-3. SCREEN (G2), DRIVE, WHITE BALANCE, SUB COLOUR and SUB BRIGHTNESS.

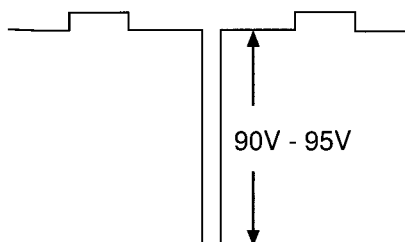


Screen (G2) setting

1. Input a 0 IRE (Black Level) signal from the pattern generator.
2. Enter into the Service Mode "Test""Test" and 38.
3. Adjust the SCREEN VR until the Down arrow is displayed.
4. Adjust the SCREEN VR until the Down arrow just disappears.
5. Press the TV Button on the Remote Commander to store the data.

Drive Level

1. Input a Video signal containing a small area of 100% white on a black background.
2. Connect an oscilloscope to Pin (10) of J701 (R OUT) on the C Board.
3. Set the Picture to maximum using "Test""Test" and 01.
4. Enter into the Service mode (Adjust Menu).
5. Using the Blue and Green buttons select "RED HWB".
6. Using the Red and Yellow buttons on the Remote Commander adjust until the oscilloscope waveform has an amplitude of 90V - 95V.

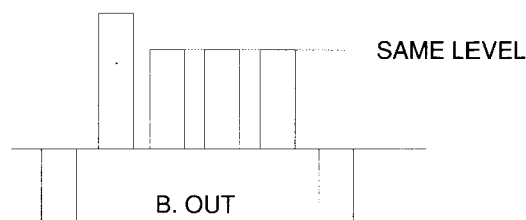


White Balance Adjustment

1. Input an all white pattern from the pattern generator.
2. Adjust the Colour and Brightness controls to the standard level.
3. Enter into the Service Mode.
4. Adjust the Green HWB and Blue HWB so that the White Balance becomes optimum.

Sub Colour Adjustment

1. Input a PAL colour bar pattern from the pattern generator.
2. Connect an oscilloscope to Pin (8) of J701 (B OUT) on the C Board.
3. Enter into the Service Mode "Test""Test" and 22.
4. Using the Red and Yellow buttons on the Remote Commander adjust until the oscilloscope waveform becomes as follows :



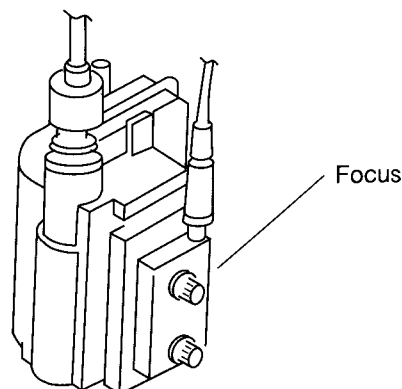
Note : If the TV is able to receive PAL and SECAM transmissions, repeat the above procedure using a Secam colour bar signal.

Sub Brightness Adjustment

1. Input a Philips pattern from the pattern generator.
2. Enter into the Service Mode "Test""Test" and 23.
3. Using the Red and Yellow buttons on the Remote Commander adjust until the 0 IRE of the grey scale and the cut off are only slightly visible on the screen.

3-4. FOCUS

1. Receive a television broadcast.
2. Normalize the picture setting.
3. Adjust the focus control on the flyback transformer to focus the screen centre area properly.
Bring only the centre area of the screen into focus, the magenta-ring appears on the screen. In this case, adjust the focus to optimize the screen uniformly.



SECTION 4

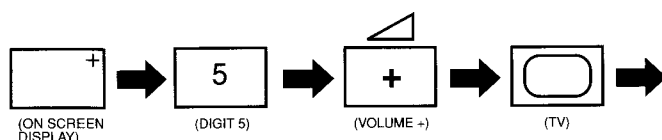
CIRCUIT ADJUSTMENTS

4-1. ELECTRICAL ADJUSTMENTS

Service adjustment to this model can be performed with the supplied Remote Control Commander RM-836.

HOW TO ENTER INTO SERVICE MODE

1. Turn on the main power of the set and enter into stand-by mode.
2. Press the following sequence of buttons on the Remote Control Commander.



"TT-- " will appear in the top right corner of the screen
Other status information will also be displayed.

3. Press the MENU button on the Remote Commander to obtain the menu on the screen.

Adjust.		
P.AMPL 10	These parameters have different values for 4x3 (10&02) and 16x9(10&07) screen modes. Also, Pin amplitud can be adjusted independently in NTSC system. (10)	
C.CORR 02		
BM = 000	Data for production	
H/M = 015		
M/L = 015		
V.01	080597	SONY BE5

Software version

Range of adjustments available from the on screen menu system.

Adjustment	Set	Range
V size	35	00 - 63
V breth	15	00 - 63
Pin amp	10 4:3 10 16:9	00 - 63
Para. tilt	45	00 - 63
V linear	42	00 - 63
Corner corr	02 : 4:3 07 : 16:9	00 - 63
H Ampl	34	00 - 63
V pos	35	00 - 63
H phase	42	00 - 63
Blue	20	00 - 63
Green	25	00 - 63
Red	40	00 - 63
V cent	40	00 - 63
HV blk 1	00	00 - 63
HV blk 2	00	00 - 63
Zwei max	38	00 - 63
Zwei min	18	00 - 63
Zwei time	18	00 - 63

4. Press the Blue (Next) or Green (previous) buttons to select the adjustment item from the table.
5. Press the Yellow (+) or Red (-) buttons to change the data as required.
6. Turn off the power to quit the service mode when adjustments are completed.

4-2. TEST MODE 2:

TT -- Mode is available by pressing the Test button twice, O.S.D 'TT --' appears. The functions described below are available by pressing two digits. To release the 'TT --' mode, press 0 twice, press 'TEST', press 'TV' or switch the TV into Stand-by mode.

00	switch TT-off
01	Set picture level maximum
02	Set picture level minimum
03	No function
04	Set volume to 50% of maximum
05	Set volume to 65% of maximum
06	Set volume to 80% of maximum
07	Enable Ageing condition
08	Set TV shipping conditions
09	No function
10	No function
11	Sets zoom mode in 4:3 and TT menu
12-16	No function
17	Meshing Enable or Disable
18	No function
19	RGB priority Enable or Disable
20-21	No function
22	Subcolour PAL, SECAM
23	Sub Brightness Adjustment
24	Enable tuning for systems B/G/L
25	Enable tuning for systems B/G/D/K
26	Enable tuning for system I
27	Enable tuning for system I/I
28	Enable tuning for system B/G
29	Enable tuning for system D/K/B/G
30	Enable tuning for system B/G/D/K
31	No function
32	Picture level to 50%
33-35	No function
36	Audio mute ON
37	OSD off
38	G2 Adjustment
39-47	No function

48	set NVM testbyte to 44h
49	erase NVM testbyte
50	toggle 16:9/4:3 models
51	toggle 100/60 programs and YC Enable or Disable
52	set MEGABASS ON and BASS to max
53-54	No function
55	OSD horizontal adjustment, left side
56-59	No function
60	MAGABESS ON
61	MEGABASS OFF
62	IQ MODES ON
63	IQ MODES OFF
64-65	No function
66	OSD horizontal adjustment, right side
67-70	No function
71(*)	TXt white balance adjustment
72	Auto standby off
73	sets PAL - NTSC missidentification countermeasure ON
74	sets PAL - NTSC missidentification countermeasure OFF
75	text not interlaced and odd field
76	text not interlaced and even field
77	toggle text destination west or east
78-87	No function
88	Sets v size to min and ZOOM 1
89-98	No function
99	Recovers v size and sets ZOOM 3

(*) TEXT WHITE BALANCE ADJUSTMENT

GREEN KEY : GREEN PLUS (0 TO 63 WITH SCROLL)
RED KEY : GREEN MINUS (0 TO 63 WITH SCROLL)
BLUE KEY : BLUE PLUS (0 TO 63 WITH SCROLL)
YELLOW KEY : BLUE MINUS (0 TO 63 WITH SCROLL)

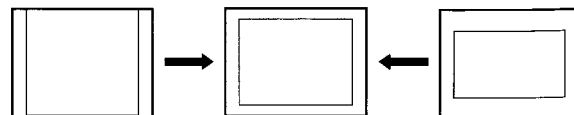
DEFLECTION SYSTEM ADJUSTMENT

1. Enter into the service mode.
2. Using the Blue or Green buttons select the Adjust item.
3. Press the Yellow button to enter the adjustment submenu.
4. Select and adjust each item in order to obtain the optimum image.

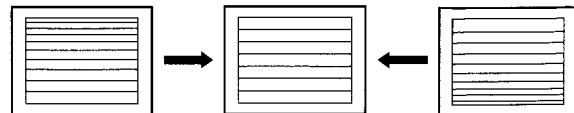
See Note on page 23

Adjustment	Set	Range
V size	35	00 - 63
V breth	15	00 - 63
Pin amp	10 4:3 10 16:9	00 - 63
Para. tilt	45	00 - 63
V linear	42	00 - 63
Corner corr	02 : 4:3 07 : 16:9	00 - 63
H Ampl	34	00 - 63
V pos	35	00 - 63
H phase	42	00 - 63
Blue	20	00 - 63
Green	25	00 - 63
Red	40	00 - 63
V cent	40	00 - 63
HV blk 1	00	00 - 63
HV blk 2	00	00 - 63
Zwei max	38	00 - 63
Zwei min	18	00 - 63
Zwei time	18	00 - 63

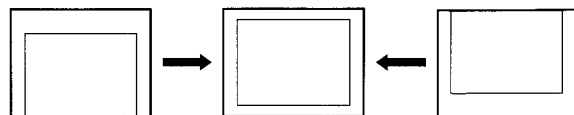
VERT, AMPL



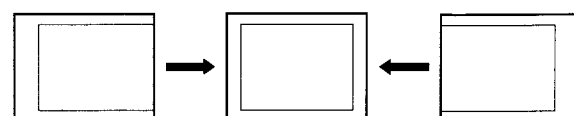
V, LINEAR



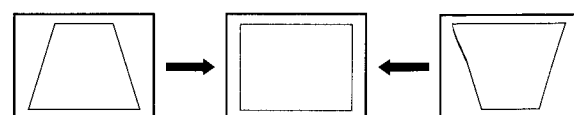
V, CENTRE



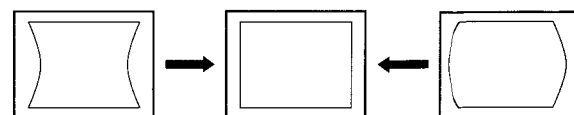
H, CENTRE



PAR TILT

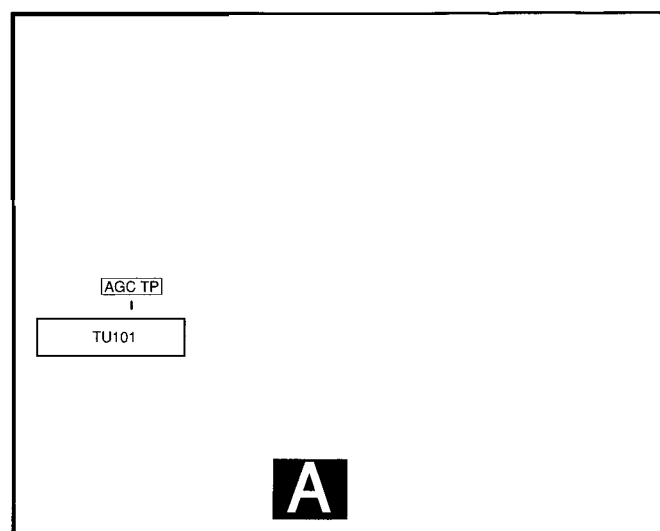


PAR AMP



AGC ADJUSTMENT

1. Receive a signal of 63dBuV / 75 ohm terminated via the tuner socket.
2. Measure the voltage at AGC TP.
3. Adjust TU101 RV to obtain a voltage of $3.0 \pm 0.3V$.



- A Board Component Side -

4-3. BE-5 SELF DIAGNOSTIC SOFTWARE

The identification of errors within the BE-5 chassis is triggered in 1 of 2 ways :- 1: Bus busy or 2: Device failure to respond to I²C. In the event of one of these situations arising the software will first try to release the Bus if busy (Failure to do so will report with a continuous flashing LED) and then communicate with each relevant device in turn to establish if a device is faulty. If a device is found to be faulty the relevant device number will be displayed through the LED by a Series of flashes which must be counted (See Table 1), Non fatal errors are reported with this method.

If a fatal error is found, the set will simply stay in whichever state it was when the error occurred, but if a non fatal error occurs the set will try to continue to operate.

To check error code it is necessary to use TV error display part number S-188-900-10.

Table 1

No. of Flashes	Notes	Error code	Description
-		00	No error.
2	(2)	30	Jungle nacks IIC bus1 transmisson.
3	(3)	31	Jungle FAULT (not OK) - flags.
4	(2)	32	Jungle - No H flyback.
-		33	Jungle - Stack overflow.
5	(4)	40	Sound Processor nacks IIC bus1 transmission.
6	(3)	91	Protection error: No V synchro.
7	(1)	10	NVM nacks IIC bus0 transmission.
8	(3)	20	Tuner nacks IIC bus1 transmission.
9	(1)	01	General IIC bus1 error (SDA1 or SCL1 are being held low.)
10	(3)	90	Protection input: X-ray protection.

- (1) Only reported on mains power up.
- (2) Reported on mains power up or exiting standby.
- (3) Reported at any time and result in the set reverting to standby mode.
- (4) Reported at any time and result in the set reverting to audio mute mode.

Note : Deflection System Adjustments should not be carried out whilst using an NTSC (60Hz) signal, or if the signal is unlocked.

Flash Timing Example : e.g. error number 3

Stby LED

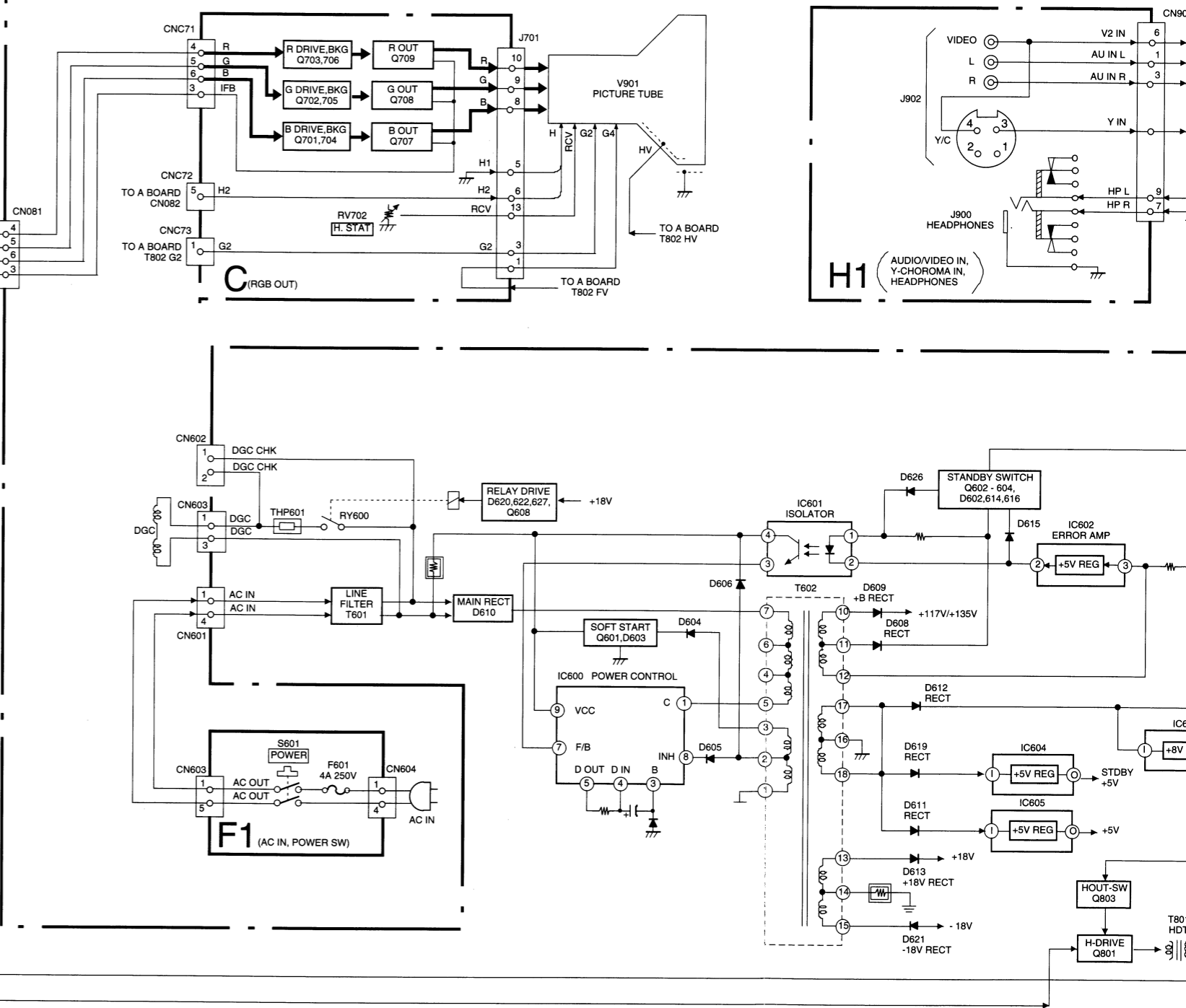
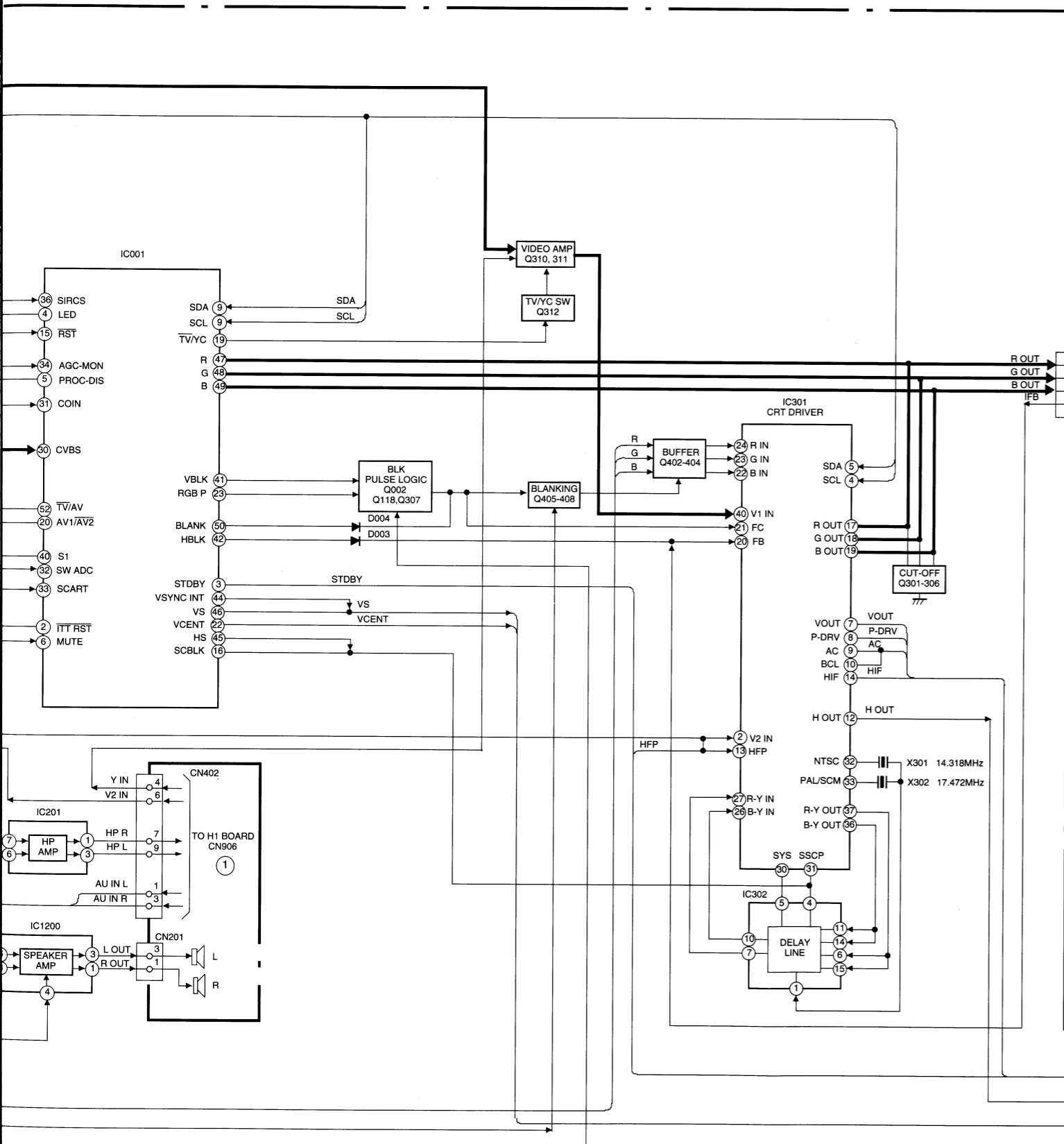


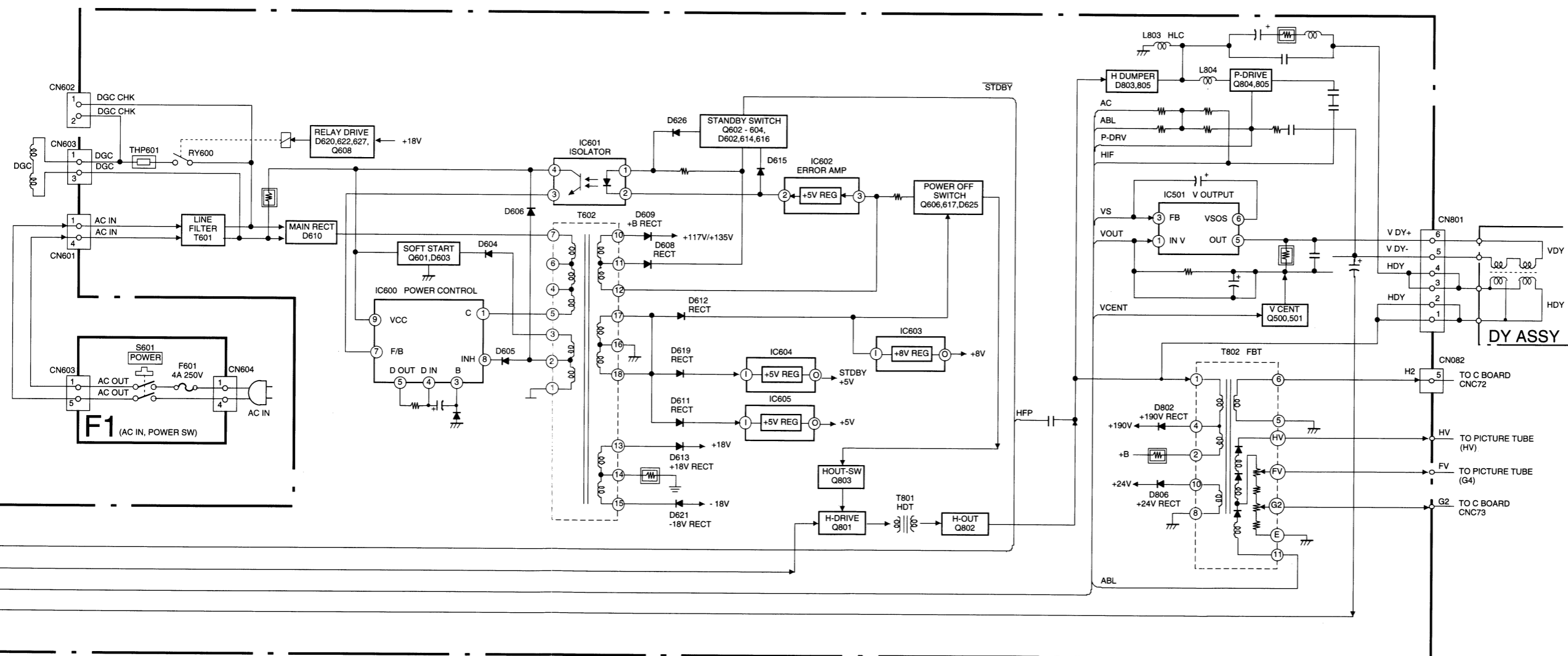
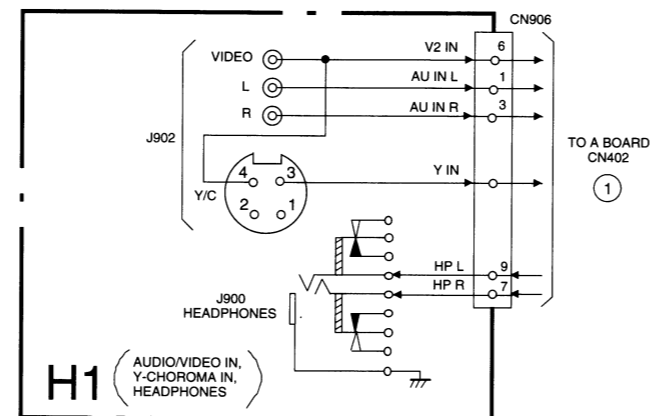
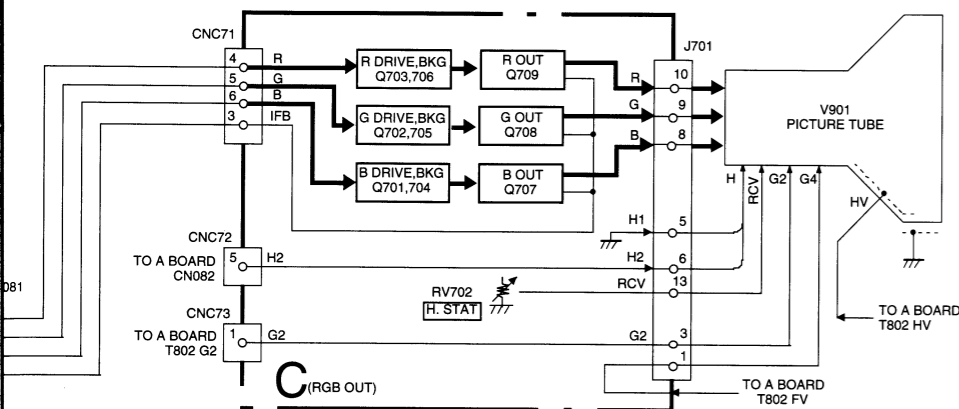
Memo

Lined area for memo content.

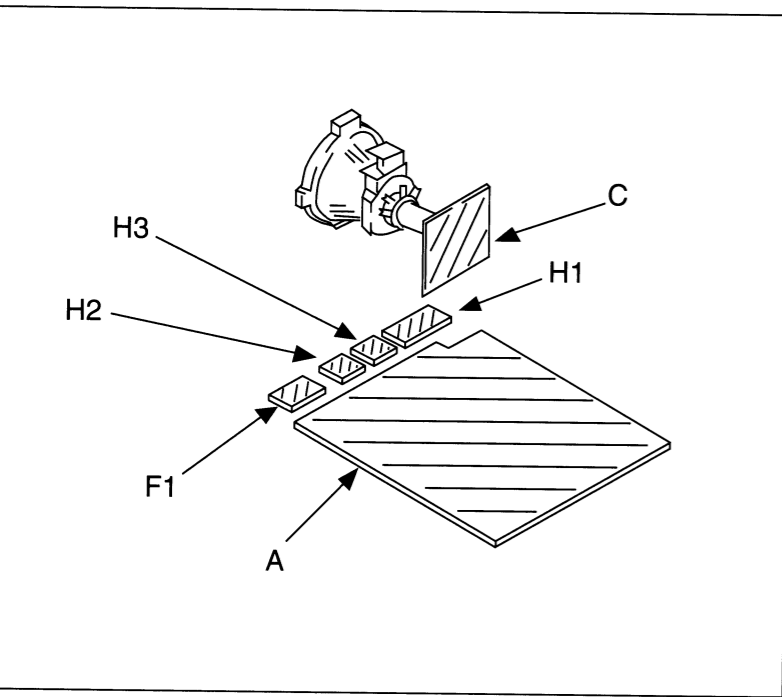
KV-21C4/21X4

A (TUNER, SIF/AUDIO PROCESSOR, CRT DRIVER, POWER SUPPLY, HV OUT, AUDIO)





5-2. CIRCUIT BOARDS LOCATION



5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

- Note :**
- All capacitors are in μF unless otherwise noted. pF : μpF 50WV or less are not indicated except for electrolytic and tantalums.
 - All resistors are in ohms.
 $k = 1000$, $M = 1000K$
 - Indication of resistance, which does not have one for rating electrical power, is as follows.

Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: RW	NONFLAMMABLE WIREWOUND
	: .	ADJUSTABLE RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

Pitch : 5 mm
Rating electrical power $\frac{1}{4}$ W

- : nonflammable resistor.
- : internal component.
- : panel designation, or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- : earth - ground.
- : earth - chassis.
- : no mounted.

Note : The components identified by shading and marked are critical for safety. Replace only with the part number specified.

Note : Les composants identifiés par une trame et une marque sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- Readings are taken with a colour-bar signal input.
- Readings are taken with 10M Ω digital multimeter.
- Voltages are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- All voltages are in V.
- Circled numbers are waveform references.
- : B+ bus.
- : signal path (RF)

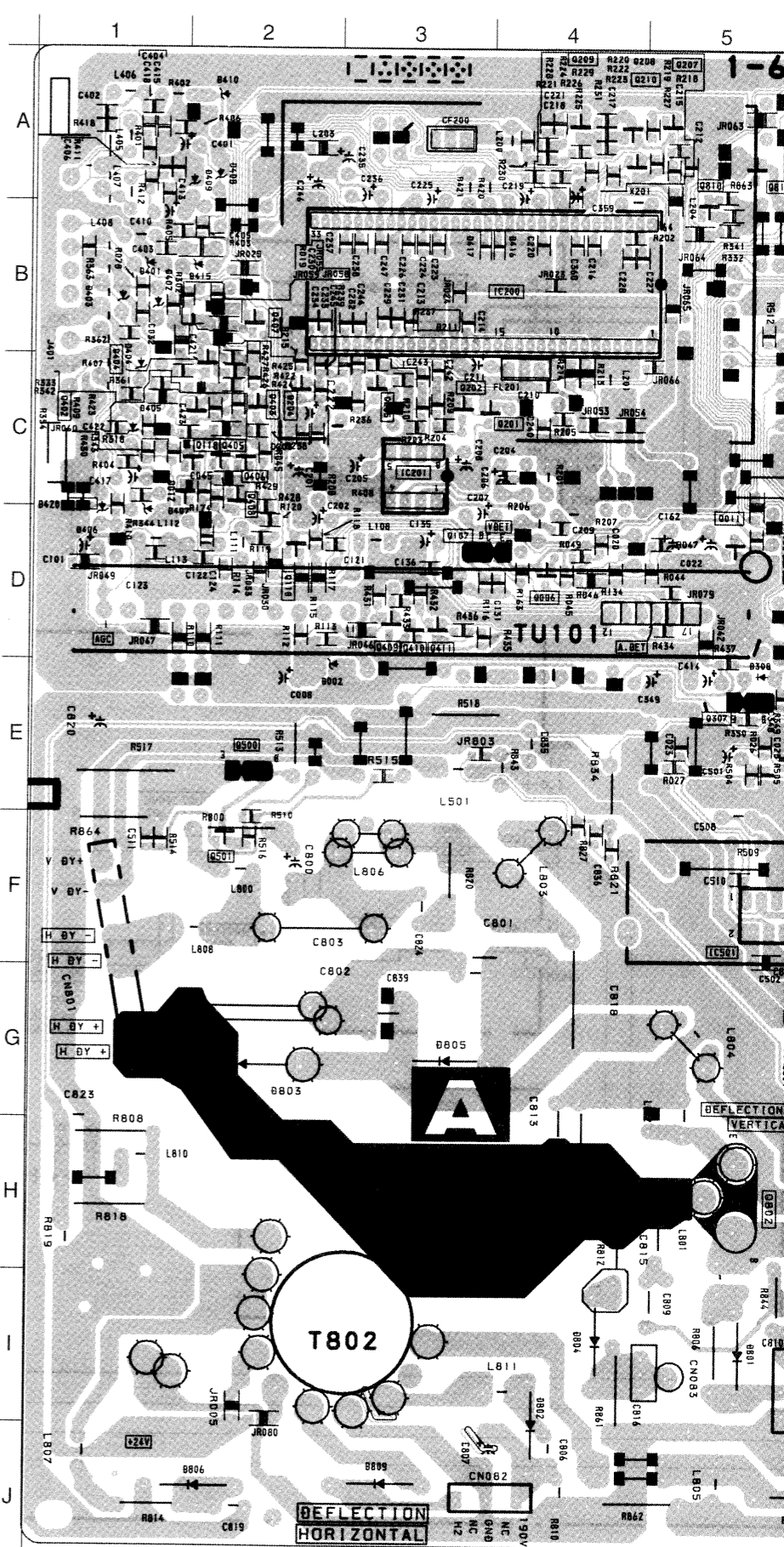
A

TUNER, SIF/AUDIO PRO
CRT DRIVER, POWER SU
HV OUT, AUDIO

A BOARD

IC		Q803 E-6	
IC001	C-11	Q804	H-6
IC002	C-11	Q805	H-6
IC004	D-11	Q1200	B-7
IC005	E-11	Q1201	B-7
DIODE			
IC200	B-3	D002	D-2
IC201	C-3	D003	C-8
IC301	B-9	D004	D-10
IC302	A-10	D005	C-10
IC401	A-7	D006	C-10
IC501	F-5	D007	D-10
IC600	H-9	D009	H-6
IC601	F-10	D011	D-11
IC602	E-8	D012	C-1
IC603	D-8	D014	D-12
IC604	F-12	D301	B-10
IC605	D-9	D302	B-8
IC1200	D-7	D306	A-11
TRANSISTOR		D307	D-6
Q002	E-11	D308	D-5
Q006	D-4	D338	D-10
Q007	E-12	D401	B-1
Q008	D-12	D402	B-1
Q009	E-12	D403	B-1
Q011	C-5	D404	B-1
Q012	C-11	D405	C-1
Q013	C-11	D406	D-1
Q014	D-10	D407	C-1
Q107	D-3	D408	A-2
Q110	D-2	D409	A-2
Q118	C-2	D410	A-2
Q200	B-6	D411	B-12
Q201	C-3	D412	A-12
Q202	C-3	D413	B-12
Q204	C-2	D414	A-11
Q205	C-3	D415	B-2
Q207	A-5	D416	B-3
Q208	A-4	D417	B-3
Q209	A-4	D418	B-11
Q210	A-4	D421	B-12
Q300	C-9	D501	G-5
Q301	B-9	D602	E-11
Q302	B-9	D603	H-10
Q303	B-9	D604	G-9
Q304	B-8	D605	G-10
Q305	B-8	D606	G-10
Q306	B-8	D607	H-9
Q307	E-5	D608	F-8
Q310	B-11	D609	E-7
Q311	B-11	D610	I-10
Q312	B-11	D612	E-9
Q402	C-1	D613	D-8
Q403	C-2	D614	E-10
Q404	B-1	D615	F-11
Q405	C-2	D616	E-11
Q406	C-2	D617	E-6
Q407	B-2	D619	E-10
Q408	C-2	D620	I-6
Q409	D-3	D621	E-8
Q410	D-3	D622	I-7
Q411	D-3	D623	D-11
Q500	E-2	D625	E-7
Q501	F-2	D626	F-10
Q601	H-9	D627	J-7
Q602	E-11	D801	I-5
Q603	E-11	D802	I-4
Q604	E-11	D803	G-2
Q606	D-7	D805	G-3
Q608	J-7	D806	I-2
Q617	E-7	D807	G-6
Q801	G-6	D809	I-2
Q802	H-5	D1200	B-7

A Board



KV-21C4/21X4**KV-21C4A**

TUNER, SIF/AUDIO PROCESSOR
CRT DRIVER, POWER SUPPLY,
HV OUT. AUDIO

A Board

ARD

IC

Q803	E-6
Q804	H-6
Q805	H-6
Q1200	B-7
Q1201	B-7

DIODE

D002	D-2
D003	C-8
D004	D-10
D005	C-10
D006	C-10
D007	D-10
D009	H-6
D011	D-11
D012	C-1
D014	D-12
D301	B-10
D302	B-8
D306	A-11
D307	D-6
D308	D-5
D338	D-10
D401	B-1
D402	B-1
D403	B-1
D404	B-1
D405	C-1
D406	D-1
D407	C-1
D408	A-2
D409	A-2
D410	A-2
D411	B-12
D412	A-12
D413	B-12
D414	A-11
D415	B-2
D416	B-3
D417	B-3
D418	B-11
D421	B-12
D501	G-5
D602	E-11
D603	H-10
D604	G-9
D605	G-10
D606	G-10
D607	H-9
D608	F-8
D609	E-7
D610	I-10
D612	E-9
D613	D-8
D614	E-10
D615	F-11
D616	E-11
D617	E-6
D619	E-10
D620	I-6
D621	E-8
D622	I-7
D623	D-11
D625	E-7
D626	F-10
D627	J-7
D801	I-5
D802	I-4
D803	G-2
D805	G-3
D806	I-2
D807	G-6
D809	I-2
D1200	B-7

TRANSISTOR

E-11
D-4
E-12
D-12
E-12
C-11
C-11
D-10
D-3
D-2
C-2
B-6
C-3
C-3
C-2
C-3
A-5
A-4
A-4
A-4
C-9
B-9
B-9
B-8
B-8
B-8
E-5
B-11
B-11
C-1
C-2
B-1
C-2
C-2
B-2
C-2
D-3
D-3
D-3
E-2
F-2
H-9
E-11
E-11
D-7
J-7
E-7
G-6
H-5

1-666-871-11

SONY

T602

T802

DEFLECTION VERTICAL

DEFLECTION HORIZONTAL

AC IN

A BOARD TRANSISTOR TABLE

Transistor Voltage Table			
Ref No	B Base	C Collector	
Q002	-	5.0	
Q006	4.6	0.7	
Q007	-	5.0	
Q008	5.0	5.0	
Q009	0.1	5.0	
Q011	0.6	5.0	
Q012	-	5.0	
Q013	-	5.0	
Q014	-	5.0	
Q110	4.6	8.0	
Q118	-	-	
Q201	-	-	
Q202	-	-	
Q204	4.7	8.0	
Q205	4.6	8.0	
Q210	3.5	8.0	
Q300	0.3	0.6	
Q301	0	2.0	
Q302	0	2.1	
Q303	0	2.2	
Q304	0	2.0	
Q305	0	2.1	
Q306	0	2.2	
Q310	1.7	5.0	
Q311	3.6	5.0	
Q312	-0.2	-	
Q403	-	-	
Q404	-	-	
Q500	5.4	19.7	
Q501	0.6	5.4	
Q601	-0.3	-2.2	
Q602	68.0	8.0	
Q603	0	67.7	
Q604	0.6	0	
Q608	-	15.8	
Q801	0	120	
Q802	-0.2	120	
Q803	0.1	0.6	
Q804	0.5	16.0	
Q805	1.0	16.0	
Q1201	3.5	7.0	

A BOARD *MARK

	21C4B
C12	47PF
C215	100PF
C349	22MF
C630	180M
D13	MTZJ-6.8C
D17	—
IC200	MSP3410D-PP-B
TU101	VIF (FR)

KV-21C4/21X4

KV-21C4/21X4

Note :

The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

**A BOARD
TRANSISTOR TABLE**

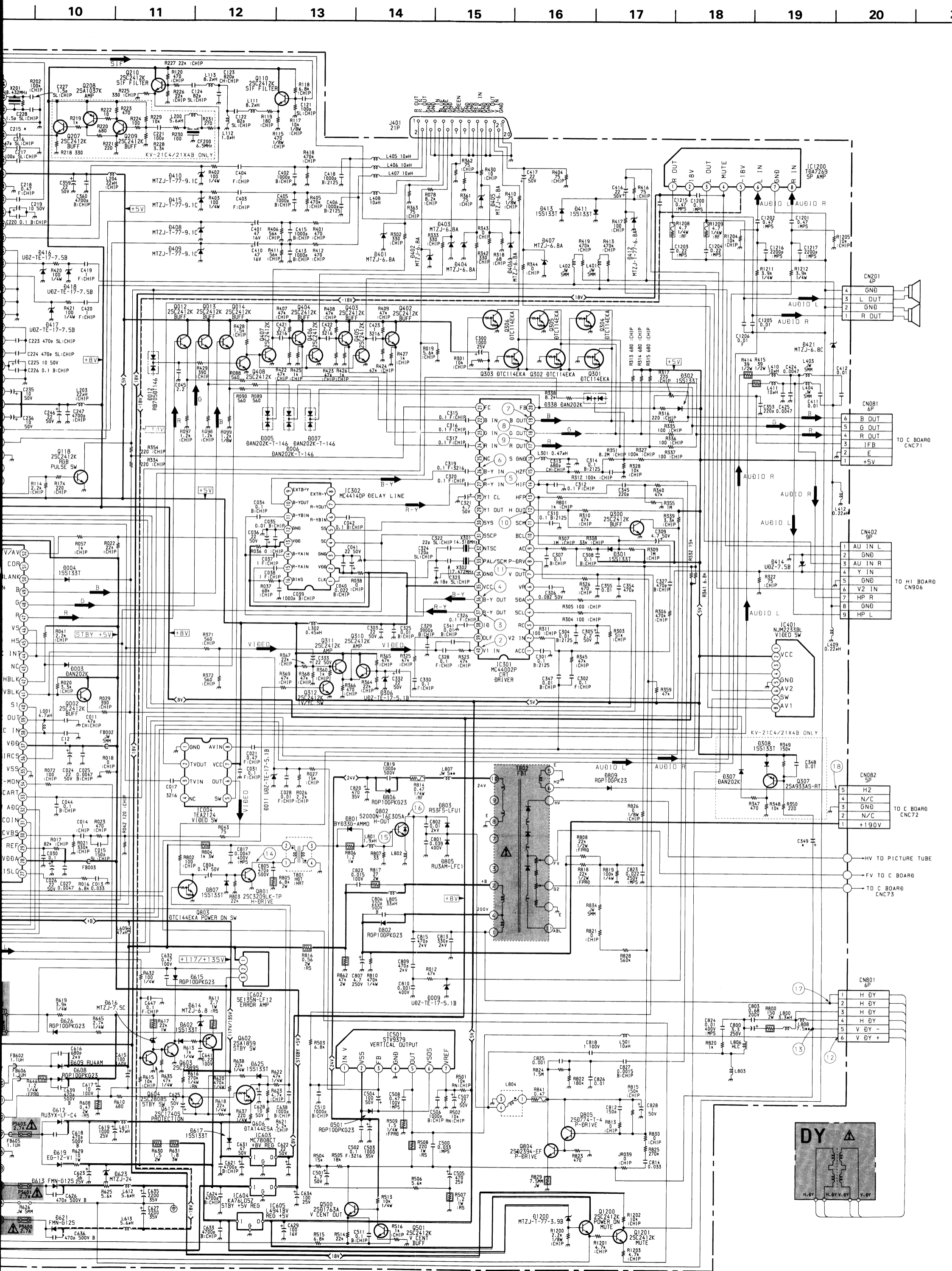
Transistor Voltage Table			
Ref No	B Base	C Collector	E Emitter
Q002	-	5.0	-
Q006	4.6	0.7	4.8
Q007	-	5.0	0
Q008	5.0	5.0	4.5
Q009	0.1	5.0	4.5
Q011	0.6	5.0	0
Q012	-	5.0	-
Q013	-	5.0	-
Q014	-	5.0	-
Q110	4.6	8.0	4.0
Q118	-	-	0
Q201	-	-	0
Q202	-	-	0
Q204	4.7	8.0	4.0
Q205	4.6	8.0	4.0
Q210	3.5	8.0	2.9
Q300	0.3	0.6	0
Q301	0	2.0	0
Q302	0	2.1	0
Q303	0	2.2	0
Q304	0	2.0	0
Q305	0	2.1	0
Q306	0	2.2	0
Q310	1.7	5.0	3.0
Q311	3.6	5.0	3.0
Q312	-0.2	-	0
Q403	-	-	-
Q404	-	-	-
Q500	5.4	19.7	4.8
Q501	0.6	5.4	0
Q601	-0.3	-2.2	-2.6
Q602	68.0	8.0	68.4
Q603	0	67.7	0
Q604	0.6	0	0
Q608	-	15.8	0
Q801	0	120	0
Q802	-0.2	120	0
Q803	0.1	0.6	0
Q804	0.5	16.0	-
Q805	1.0	16.0	0.5
Q1201	3.5	7.0	2.8

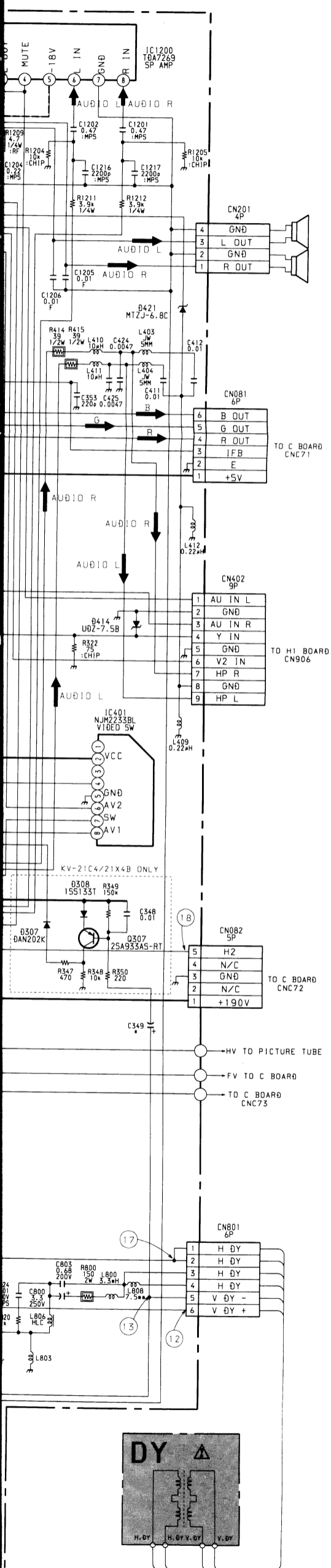
A BOARD *MARK

	21C4B	21C4X4D	21C4E	21C4K	21C4R	21X4A	21X4B	21X4E	21X4K	21X4L	21X4R	21X4U
C12	47PF	68PF	47PF	47PF	47PF	68PF	68PF	68PF	68PF	68PF	68PF	68PF
C215	100PF	—	—	—	—	—	100PF	—	—	—	—	—
C349	22MF	—	—	—	—	—	22MF	—	—	—	—	—
C630	180M	180M	180M	180M	220M	180M	180M	180M	180M	180M	220M	180M
D13	MTZJ-6.8C	MTZJ-6.8C	MTZJ-6.8C	MTZJ-6.8C	MTZJ-6.8C	ISS133T	MTZJ-6.8C	MTZJ-6.8C	MTZJ-6.8C	ISS133T	MTZJ-6.8C	MTZJ-6.8C
D17	—	—	—	—	—	ISS133T	—	—	—	ISS133T	—	—
IC200	MSP3410D-PP-B3	MSP3400C-PP-C6	MSP3410D-PP-B3	MSP3410D-PP-B3	MSP3400C-PP-C6	MSP3400C-PP-C6	MSP3410D-PP-B3	MSP3410D-PP-B3	MSP3410D-PP-B3	MSP3410D-PP-B3	MSP3400C-PP-C6	MSP3410D-PP-B3
TU101	VIF (FR)	VIF (AEP)	VIF (AEP)	VIF (AEP)	VIF (AEP)	VIF (AEP)	VIF (FR)	VIF (AEP)	VIF (AEP)	VIF (AEP)	VIF (AEP)	VIF (UK)

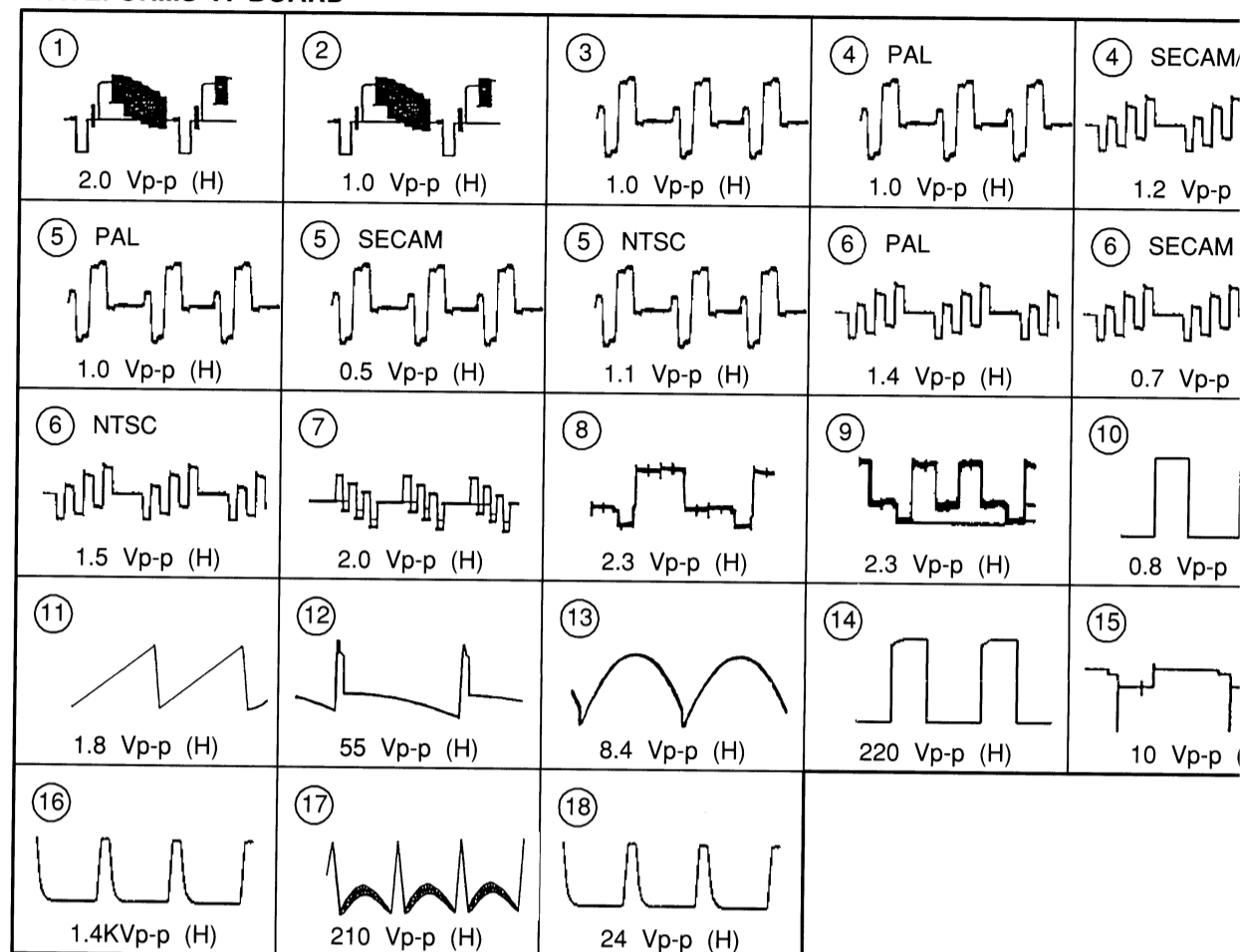
A BOARD IC VOLTAGE TABLE

IC Voltage Table			IC Voltage Table		
Ref No	Pin No	Voltage (V)	Ref No	Pin No	Voltage (V)
IC004	2	2.0	IC302	1	1.6
	3	2.2		2	4.7
	6	1.9		4	1.3
	7	5.0		6-7	1.4
IC200	8	1.8		8	0.2
	7	4.8		10-11	1.4
	9	3.1		13	4.7
	10	3.1		14-15	1.1
	18	4.8		16	1.6
	24	4.5	IC401	4	2.1
	31-32	3.8		6	3.0
	36-37	3.8		7	2.7
	38	7.0		8	3.0
	39	8.0	IC501	2	28.3
	40	7.0		3	1.4
	42-45	3.8		5	20.0
	49-50	3.8		6	28.6
	52-53	3.8		7	2.6
	54	2.6	IC1200	2	15.8
	55	3.8		4	7.0
	57	4.8		5	-16.0
	58-59	1.5			
	62-63	2.4			
IC201	1	3.5	IC301	1	1.6
	2	8.0		2	0.8
	3	3.5		3	1.3
	5	0.5		4-5	3.3
IC301	8	0.5		6	0.9
	1	1.6		7	1.5
	2	0.8		8	1.0
	3	1.3		9	1.3
	4-5	3.3		10	2.3
	6	0.9		11	1.6
	7	1.5		12	0.3
	8	1.0		13	0.4
	9	1.3		14	1.0
	10	2.3		15	2.1
	11	1.6		17-19	2.4
	12	0.3		20	3.1
	13	0.4		22-23	3.0
	14	1.0		24	2.9
	15	2.1		26-27	3.1
	17-19	2.4		28	1.0
	20	3.1		31	1.3
	22-23	3.0		32-33	1.8
	24	2.9		35	4.7
	26-27	3.1		36	2.5
	28	1.0		37	2.4
	31	1.3		38	0.8
	32-33	1.8		39	3.0
	35	4.7		40	2.8
	36	2.5			
	37	2.4			
	38	0.8			
	39	3.0			
	40	2.8			

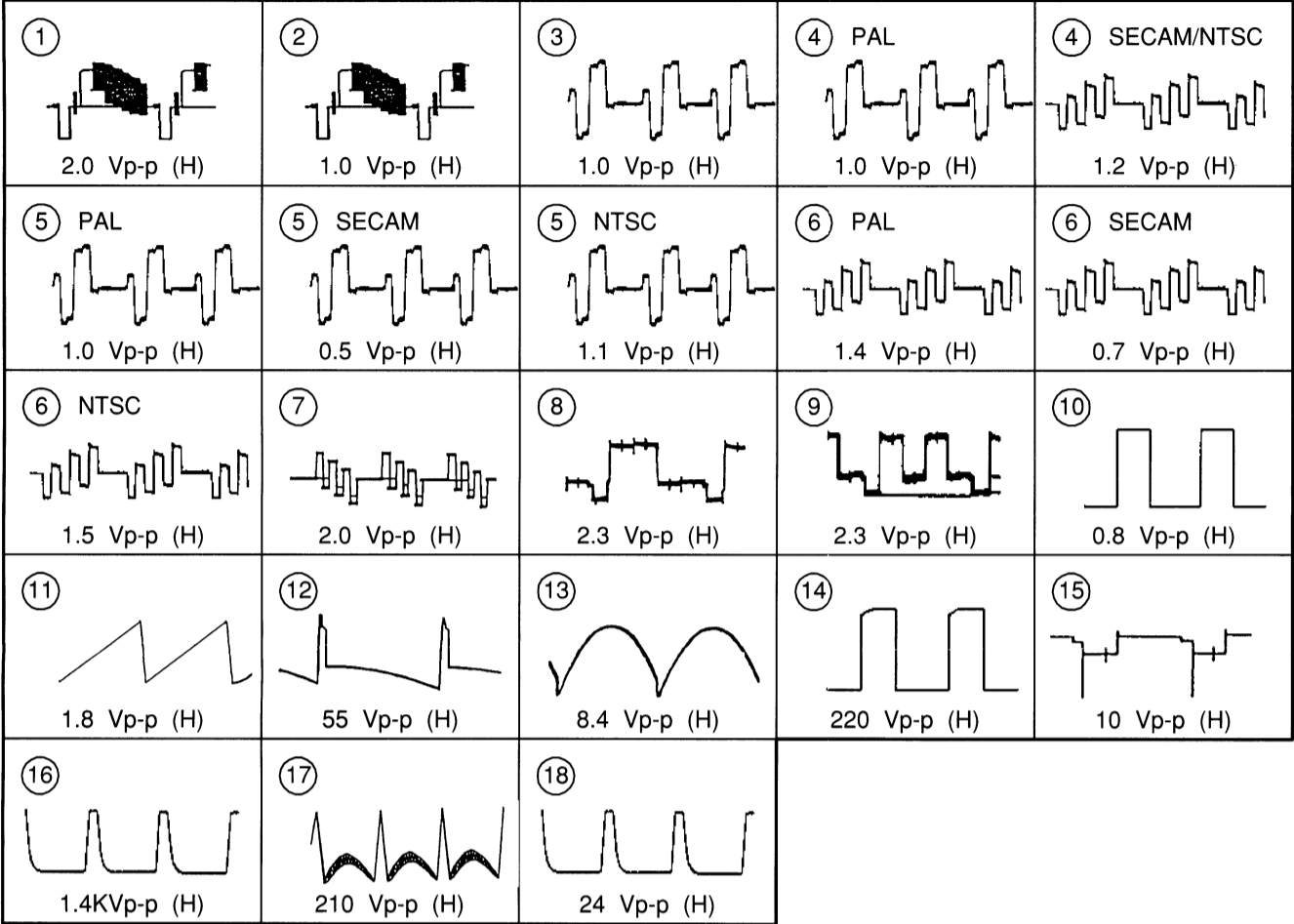


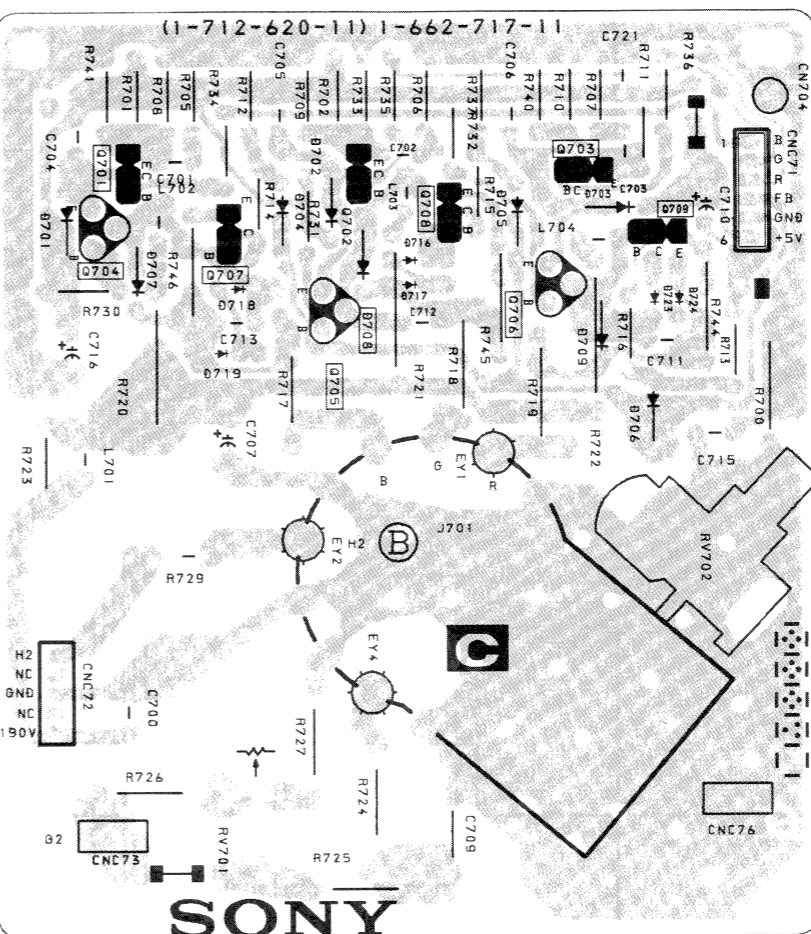


WAVEFORMS A BOARD



WAVEFORMS A BOARD

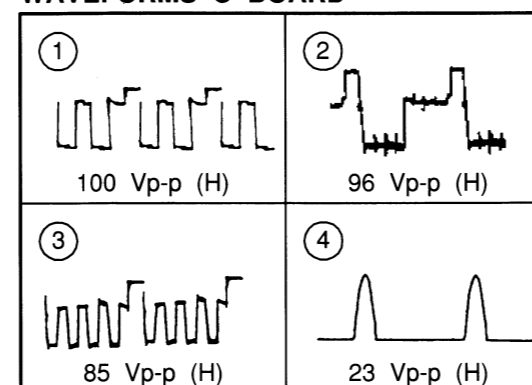




C BOARD TRANSISTOR VOLTAGE TABLE

Transistor Voltage Table			
Ref No	B Base	C Collector	E Emitter
Q701	2.5	4.3	1.8
Q702	2.5	4.3	1.8
Q703	2.3	4.3	1.7
Q704	5.0	144.8	4.3
Q705	5.0	149.2	4.3
Q706	5.0	152.3	4.3
Q707	144.8	3.5	152.3
Q708	149.2	3.5	149.2
Q709	151.7	3.5	172.2

WAVEFORMS C BOARD



H1

AUDIO/VIDEO IN,
Y-CHROMA IN,
HEADPHONES

H2

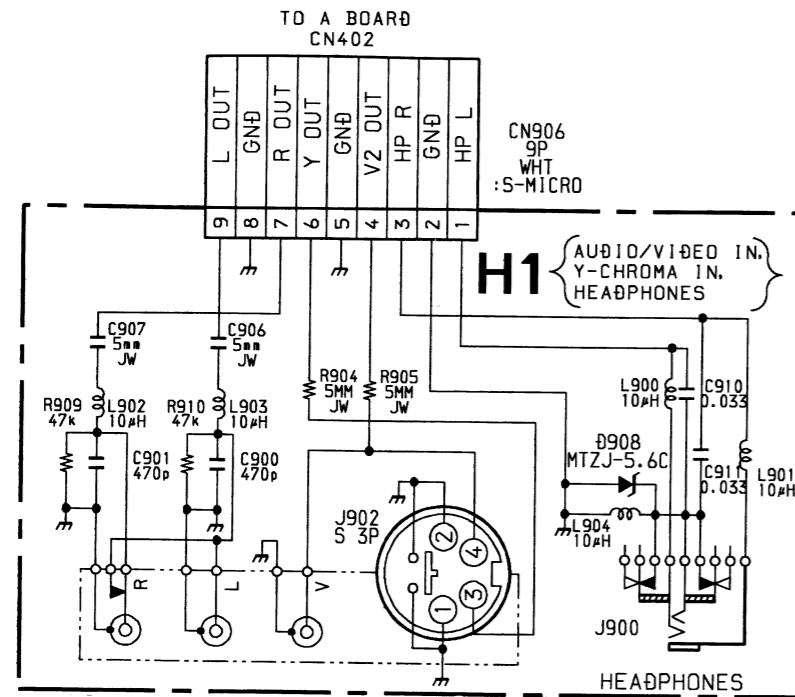
SIRCS RECEIVER,
INDICATOR

H3

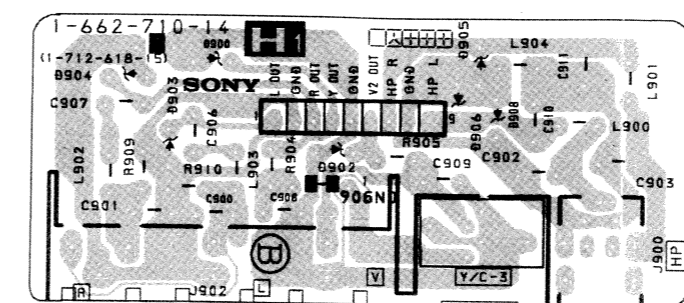
[FUNCTION SW]

F1

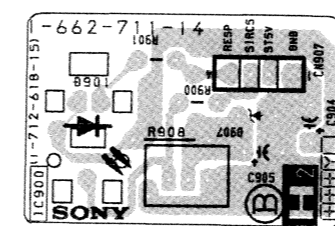
[AC IN, POWER SW]



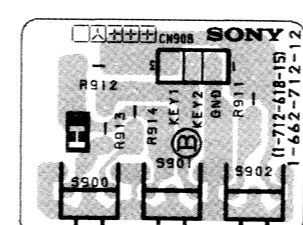
H1 Board



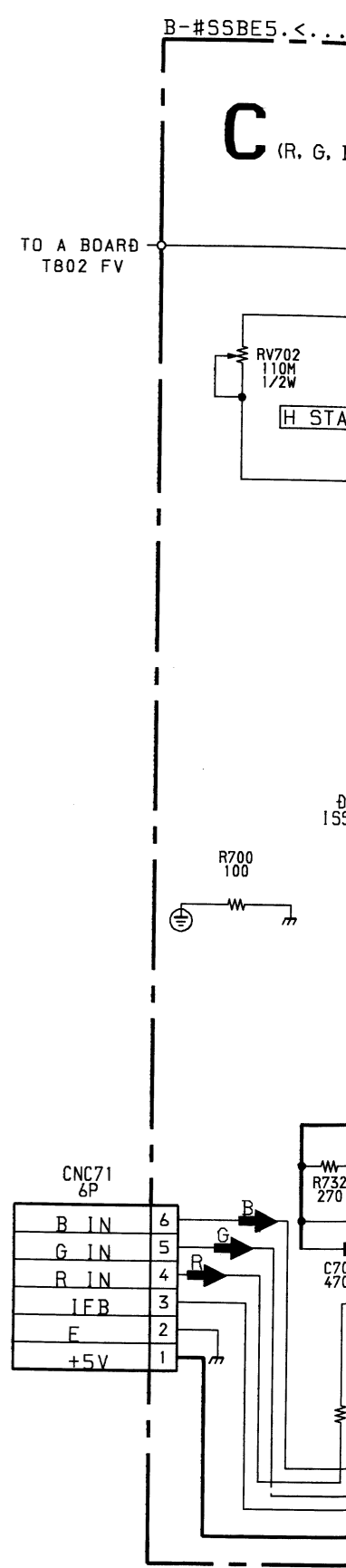
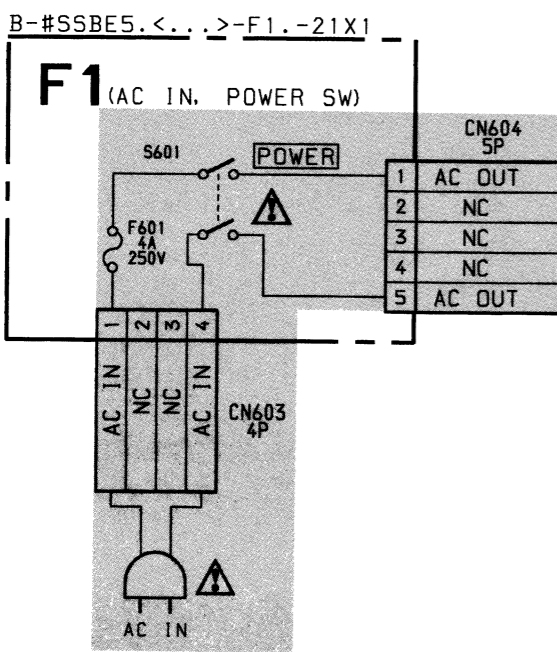
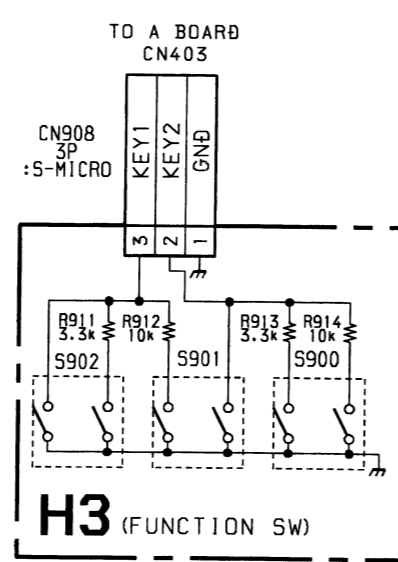
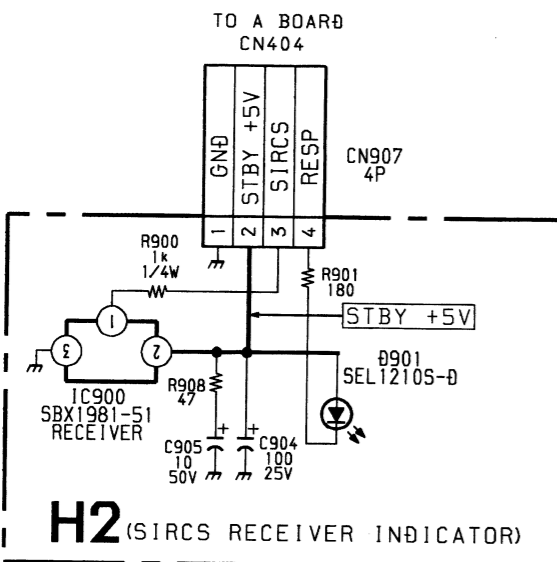
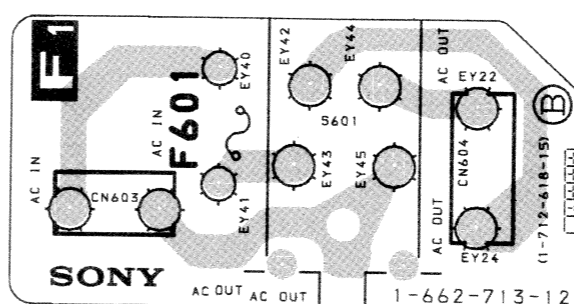
H2 Board



H3 Board

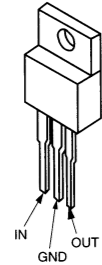


F1 Board

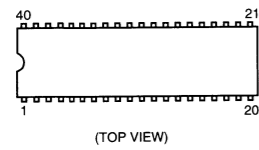


5-4. SEMICONDUCTORS

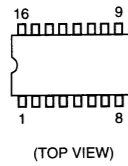
L4941BV
LM7808CT
MC7808CT
TEA7605
TL750L05CLPR



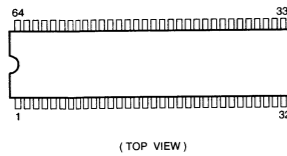
MC44002P



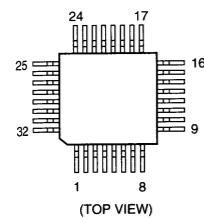
MC44140P



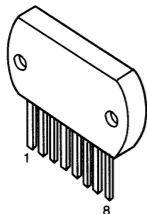
MSP3400C-PP-C6
MSP3410B-PP-F7



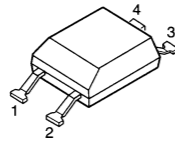
M27C512-90C1-BE5-1



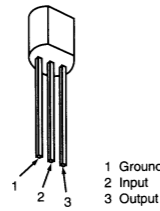
NJM2233BL



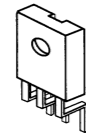
PC123F2
PC123FY2



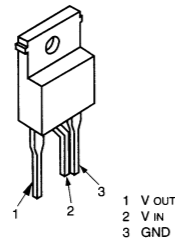
PST572D
PST572D-T



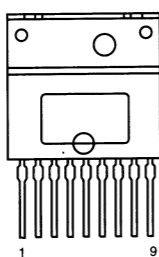
SBX1981-51



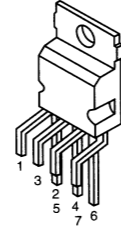
SE-135N
SE135N-LF12



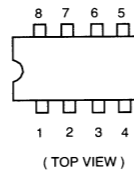
STR-S6707



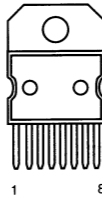
STV9379



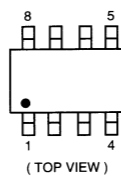
TDA2822M
TEA2124



TDA7264



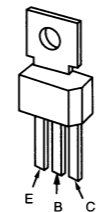
ST24W04FB6



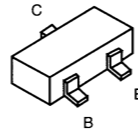
BF421-AMMO
2SA1091-O



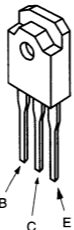
BF871-127



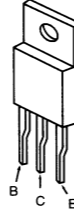
DTA144ESA
DTA144ESA-TP
DTC114EK
DTC114EKA-T146
DTC143TKA-T146
DTC144EKA-T146
2SA1037K-T-146-R
2SA1162-G
2SC2412K-QR
2SC2412K-T-146-R



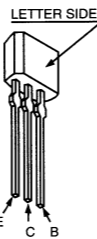
S2000N-16E305A



2SA1667
2SC3852A
2SD2394-EF



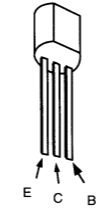
2SA933AS-QRT
2SA933AS-RT
2SC1740S-RT



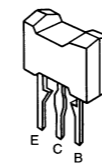
2SC2389STP-R



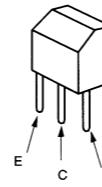
2SC2785-HFE



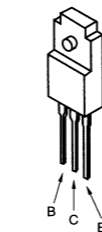
2SC2808STP-R



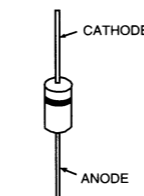
2SC3209LK
2SC3209LK-TP
2SD774-T-4
2SD774-34



2SC4793
2SD1763A

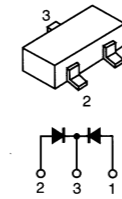


BYD33G
BYD33G-AMMO
EG-1Z-V1
EL1Z
ERC06-15S
ERD28-06S
ERD28-08S

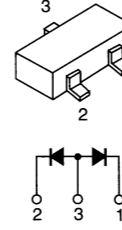


FMN-G12S
RGP10GPKG23
RU3YX-LF-C4
RU-3YX-V1
RU4AM-T3
1SS292T-77

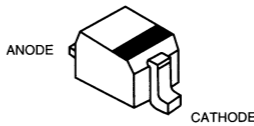
DAN202K
DAN202K-T-146



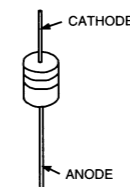
DAP202K
DAP202K-T-146



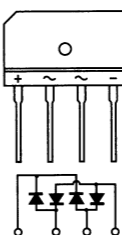
DTZ5.1B
DTZ9.1
RD5.6S-B
UDZ-TE-17-5.1B
UDZ-TE-17-5.6B
UDZ-TE-17-9.1B



ERA81-004TP1 MTZJ-T-77-9.1C
ERA83-006 MTZJ-12A
MTZJ-T-77-12A MTZJ-33C
MTZJ-T-77-33C RD3.9ES-B2
MTZJ-T-77-3.9B MTZJ-6.2B
MTZJ-T-77-5.1 RD5.1ES-B1
MTZJ-T-77-5.6C RD5.6ESB2
MTZJ-T-77-6.2 RD6.8ES-B2
MTZJ-T-77-6.8A RD9.1ES-B3
MTZJ-T-77-6.8C 1SS133T-77

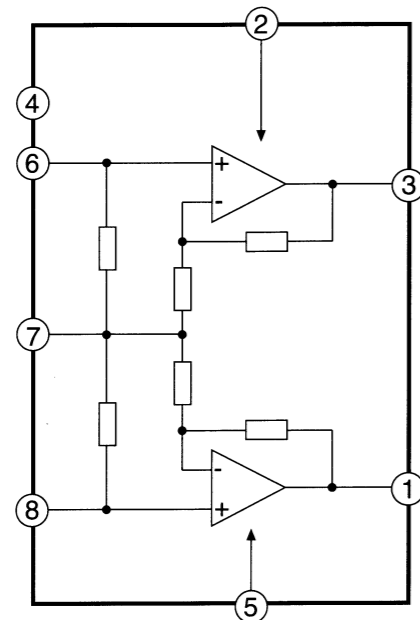


GBU4JL-6088

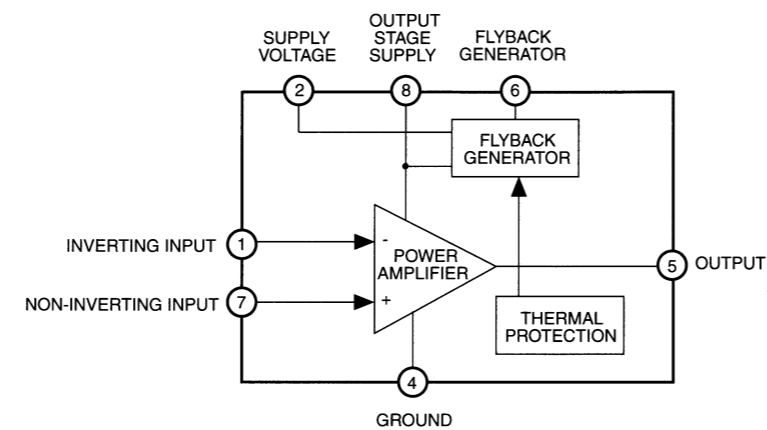


5-5. IC BLOCK DIAGRAMS

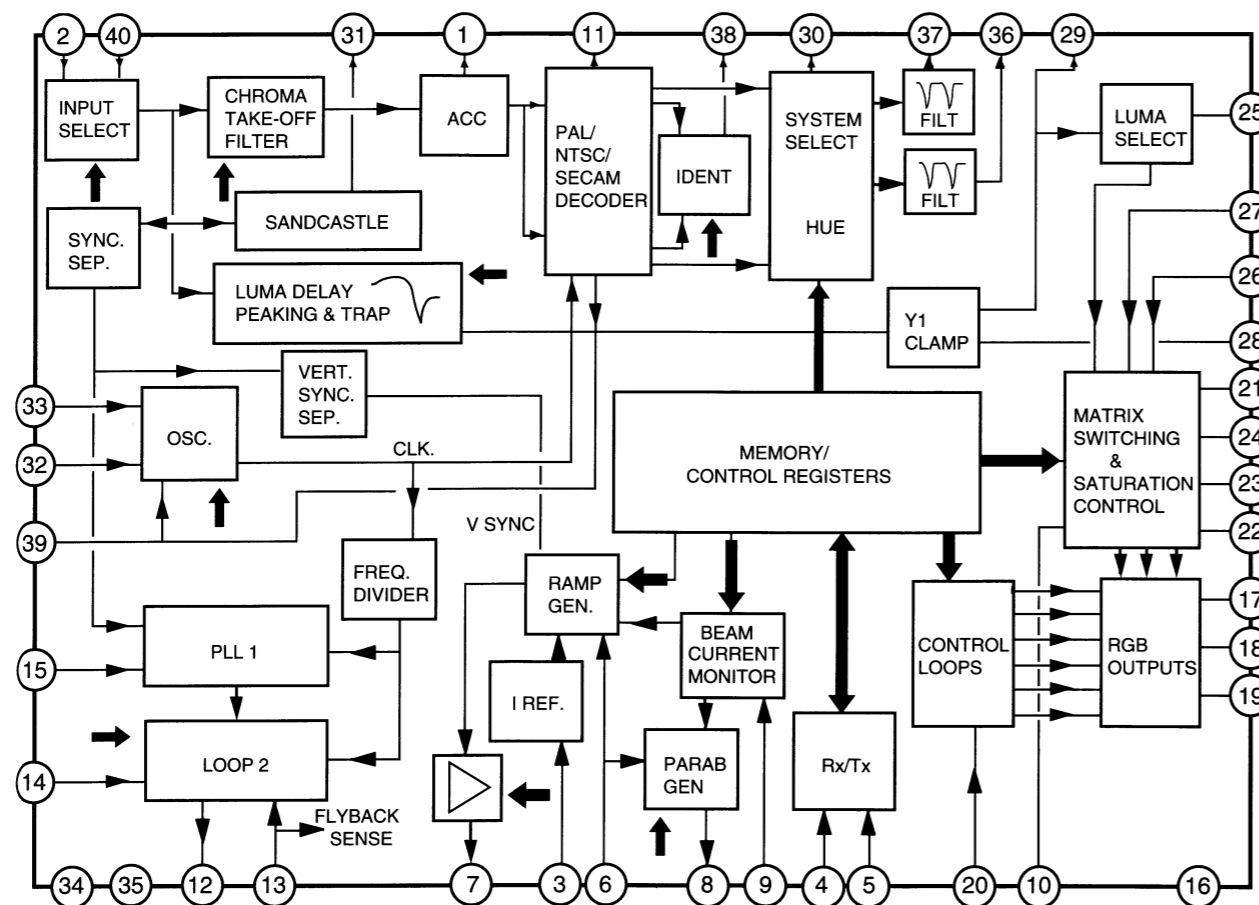
A Board IC1200 TDA7264



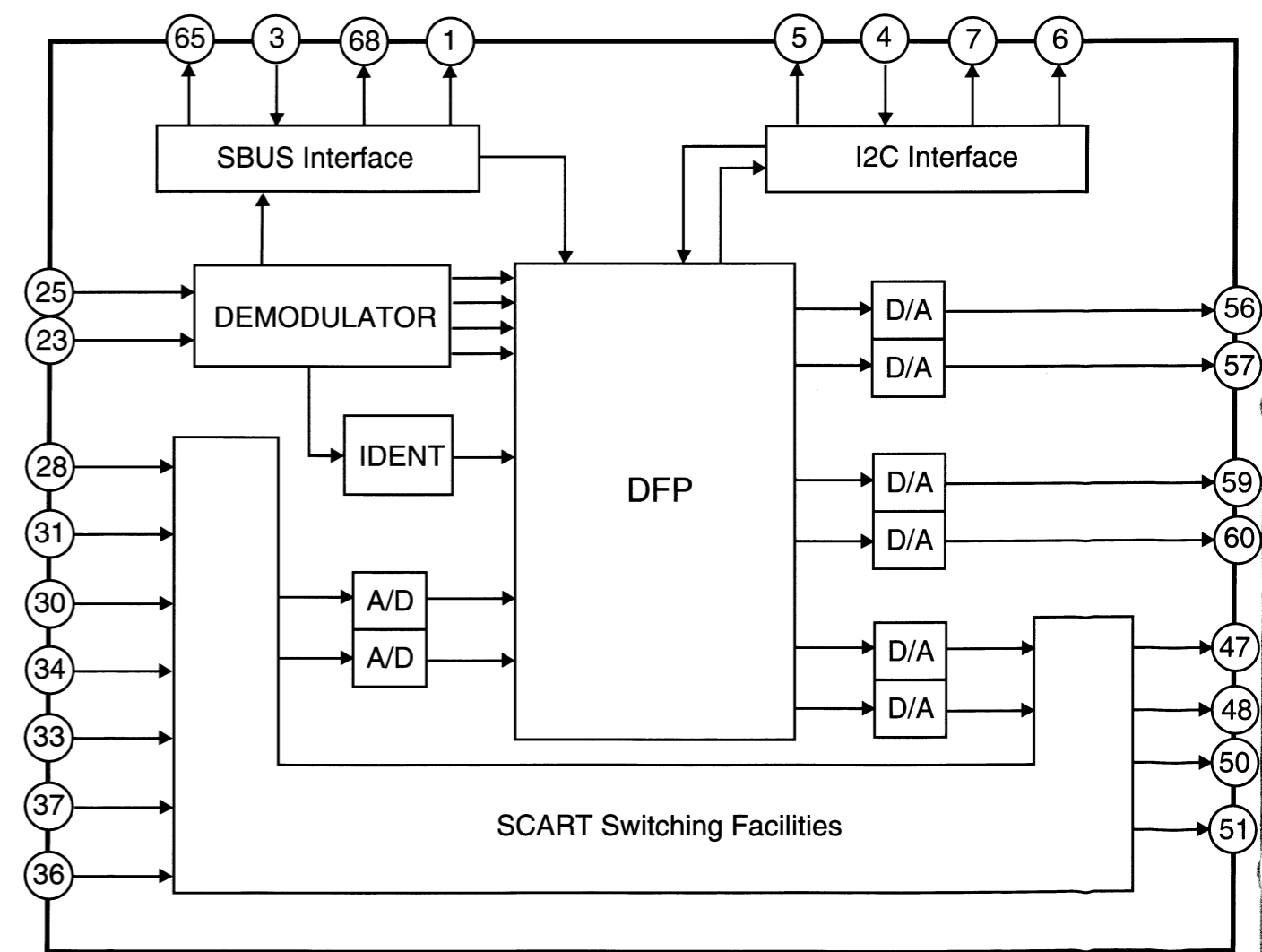
A Board IC501 STV9379



A Board IC301



A Board IC20 MSP3400C-PP-C6/MSP3410D-PP-B3



SECTION 6


EXPLODED VIEWS

NOTE :


Items with no part number and no description are not stocked because they are seldom required for routine service.

The construction parts of an assembled part are indicated with a collation number in the remarks column.

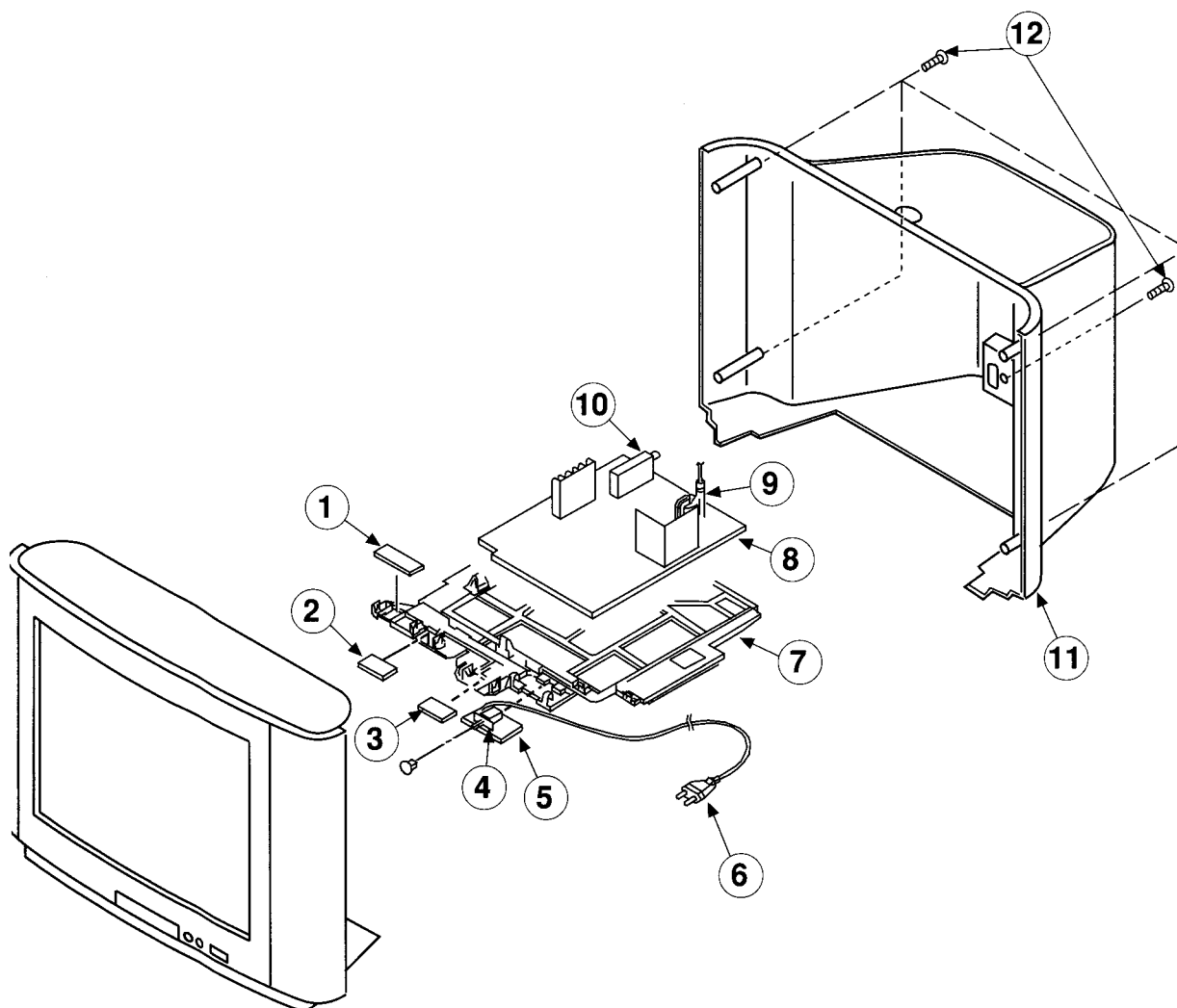
Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and marked  are critical for safety.

Replace only with the part number specified.

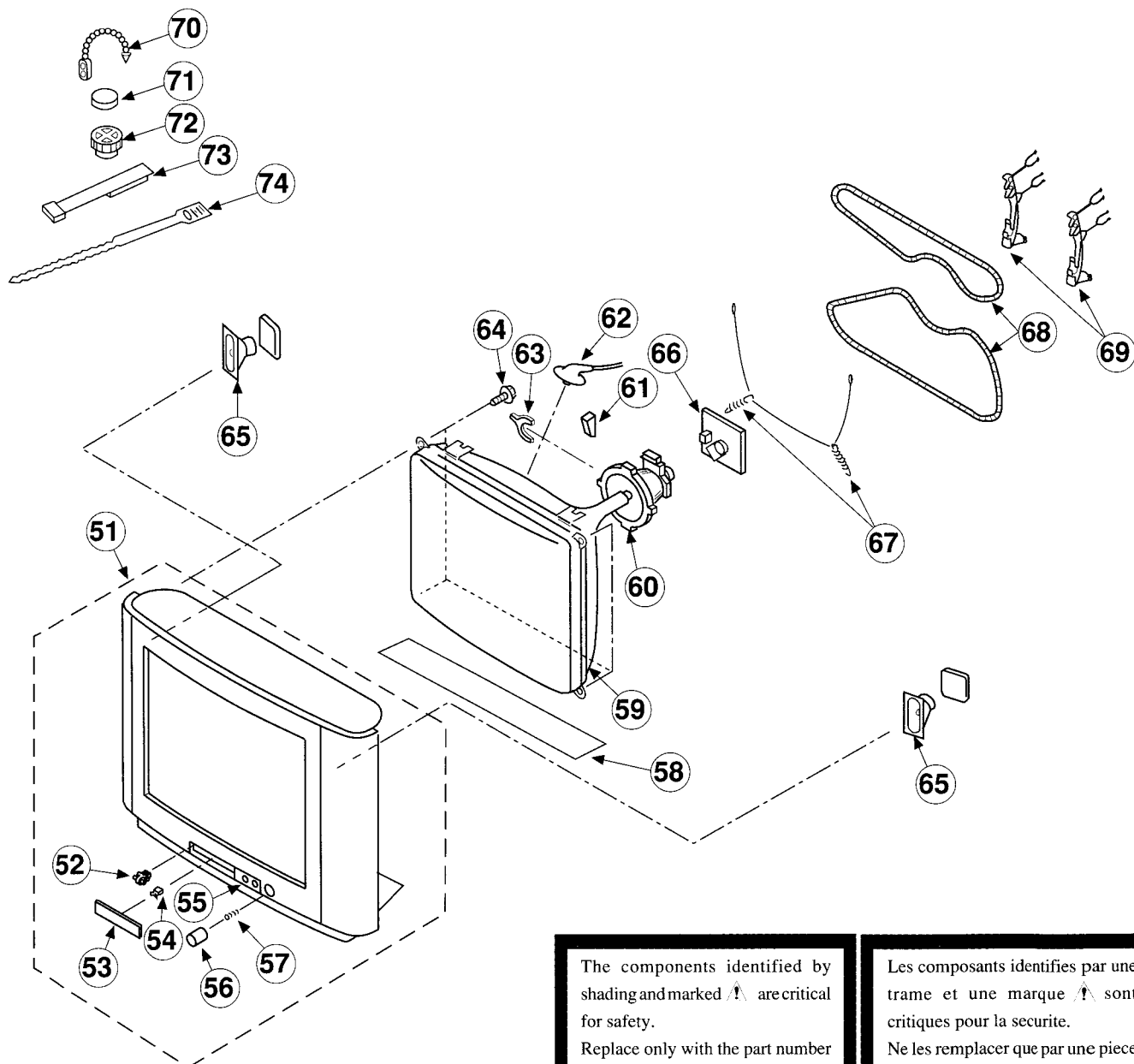
Les composants identifiés par une trame et une marque  sont critiques pour la sécurité.

Ne les remplacer que par une pièce portant le numéro spécifié.

i-1. KV-21C4 CHASSIS

EF NO	PART NO	DESCRIPTION	REMARK	REF NO	PART NO	DESCRIPTION	REMARK
	*A-1646-145-A	H1 BOARD, COMPLETE					
	*A-1646-147-A	H3 BOARD, COMPLETE					
	*A-1646-146-A	H2 BOARD, COMPLETE					
	*A-1624-063-A	F1 BOARD, COMPLETE					
	*4-203-605-11	BRACKET					
	*A-1632-667-A	A BOARD, COMPLETE (KV-21C4B)					
	*A-1632-662-A	A BOARD, COMPLETE (KV-21C4D)					
	*A-1632-638-A	A BOARD, COMPLETE (KV-21C4E)					
	*A-1632-668-A	A BOARD, COMPLETE (KV-21C4K)					
	*A-1632-669-A	A BOARD, COMPLETE (KV-21C4R)					
				10	1-693-340-11	TUNER/VIF (FR) (KV-21C4B)	
					1-693-338-11	TUNER/VIF (AEP) (KV-21C4D/21C4E / 21C4K/21C4R)	
				11	4-203-604-01	COVER, REAR	
				12	7-685-663-79	SCREW (4X16), (+) BV TAPPING	

6-2. KV21C4 PICTURE TUBE



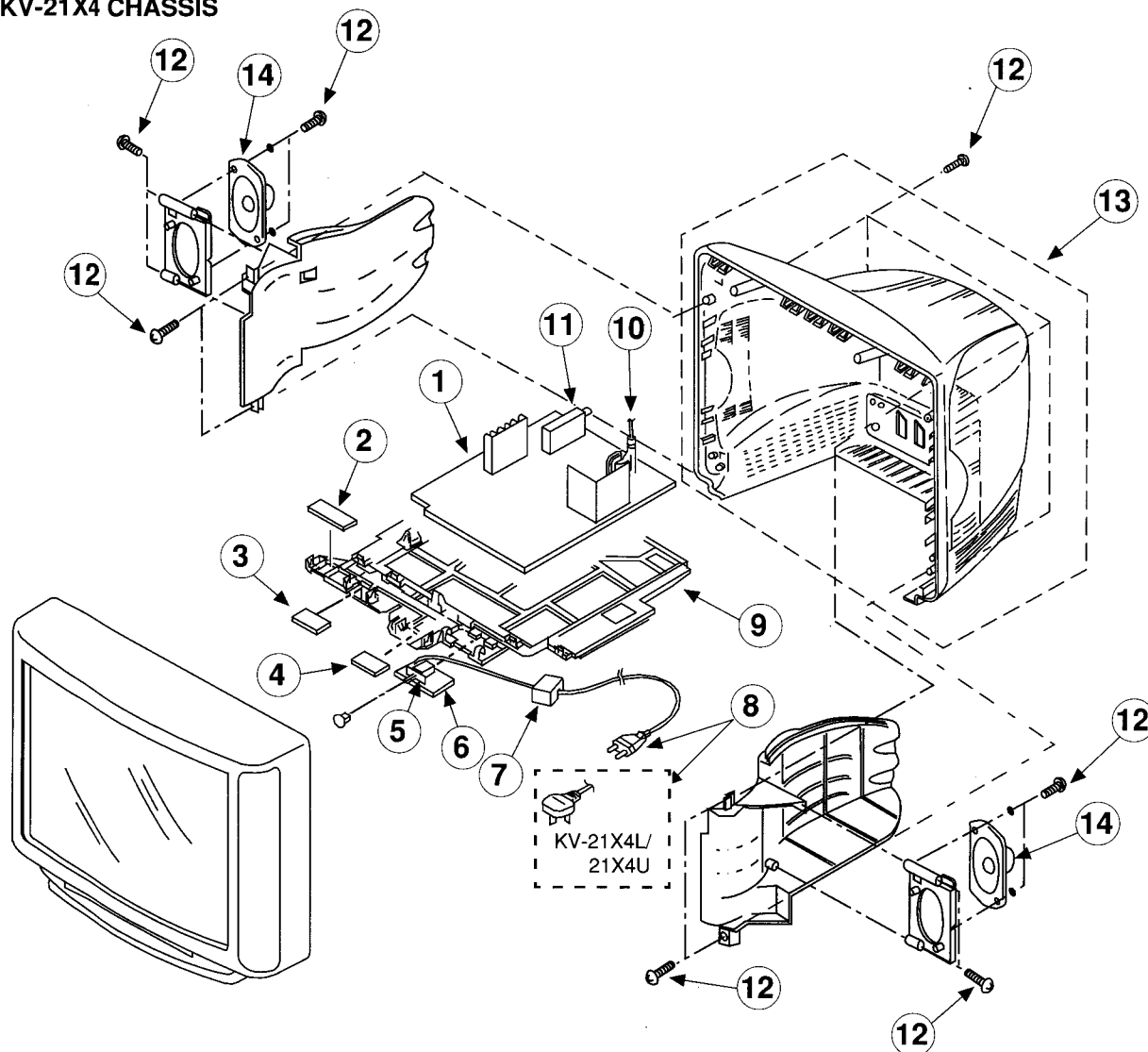
The components identified by shading and marked with a triangle are critical for safety. Replace only with the part number specified.

Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

REF NO	PART NO	DESCRIPTION	REMARK
51	X-4200-337-1	BEZNET ASSY	52-57
52	3-703-035-11	SHAFT, LID	
53	4-203-852-01	DOOR, CONTROL (PAINTED)	
		(KV-21C4B/21C4E)	
	4-203-852-11	DOOR, CONTROL (PAINTED)	
		(KV-21C4D/21C4K/21C4R)	
54	4-047-464-01	CATCHER PUSH	
55	4-203-175-01	WINDOW ORNAMENTAL	
56	4-203-176-01	BUTTON, POWER	
57	4-202-964-01	SPRING	
58	4-203-128-01	SHEET BLOTTER	
59	1-411-322-11	PICTURE TUBE (SD-169) (ASSEMBLED)	
60	1-431-295-43	DEFLECTION Yoke (Y21PFA2)	
61	3-704-495-01	SPACER, DY	

REF NO	PART NO	DESCRIPTION	REMARK
62	1-540-006-22	CAP ASSY, HIGH-VOLTAGE	
63	1-452-277-00	MAGNET, BMC	
64	4-365-808-01	SCREW (5), TAPPING	
65	1-504-570-11	SPEAKER (7.5X13CM)	
66	*A-1638-102-A	C BOARD, COMPLETE	
67	4-369-318-21	SPRING, TENSION	
68	1-411-322-11	COIL DEGAUSSING	
69	*4-386-622-11	BAND, DGC	
70	4-308-870-00	CLIP, LEAD WIRE	
71	1-452-032-00	MAGNET, DISK; 10MM Ø	
72	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM Ø	
73	X-4387-214-1	PERMALLOY ASSY, CORRECTION	
74	3-701-007-00	BAND, BINDING	

6-3. KV-21X4 CHASSIS

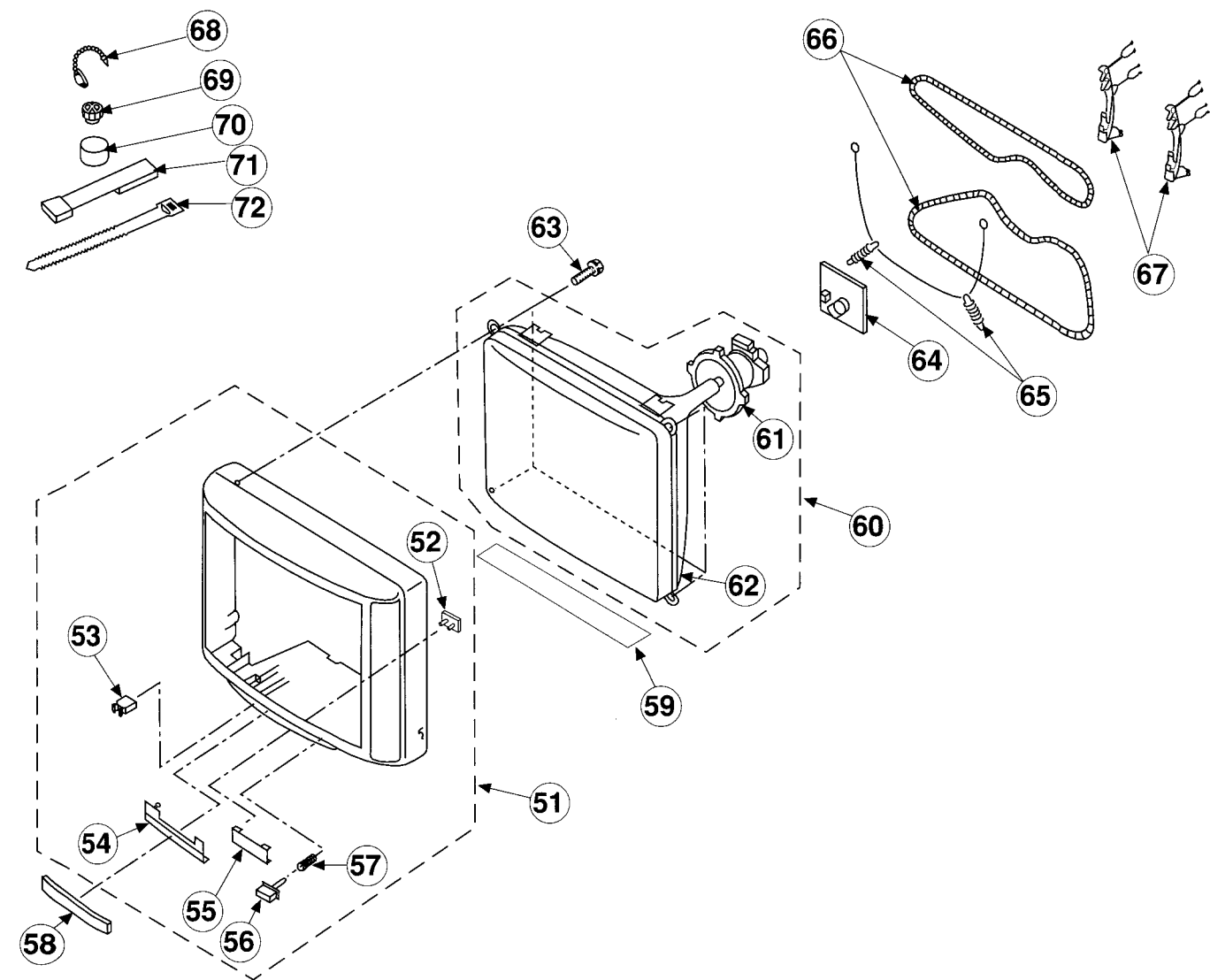


The components identified by shading and marked Δ are critical for safety.
Replace only with the part number specified.

Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

REF NO	PART NO	DESCRIPTION	REMARK	REF NO	PART NO	DESCRIPTION	REMARK
1	*A-1632-680-A	A BOARD, COMPLETE (KV-21X4A)		8	Δ 1-765-286-11	CORD POWER (KV-21X4A/21X4B/21X4D/21X4E/21X4K/21X4R)	
	*A-1632-677-A	A BOARD, COMPLETE (KV-21X4B)			Δ 1-776-204-11	CORD POWER (FILTER) 2.5A/250V	
	*A-1632-678-A	A BOARD, COMPLETE (KV-21X4D)		9	*4-203-594-01	BRACKET	
	*A-1632-651-A	A BOARD, COMPLETE (KV-21X4E)		10	Δ 1-453-199-11	TRANSFORMER ASSY, FLYBACK	
	*A-1632-683-A	A BOARD, COMPLETE (KV-21X4K)				XX-174L/U2A	
	*A-1632-684-A	A BOARD, COMPLETE (KV-21X4L)		11	1-693-338-11	TUNER/VIF (AEP)	
	*A-1632-681-A	A BOARD, COMPLETE (KV-21X4R)				(KV-21X4A/21X4D/21X4E/21X4K/21X4L/21X4R)	
	*A-1632-682-A	A BOARD, COMPLETE (KV-21X4U)			1-693-340-11	TUNER/VIF (FR) (KV-21X4B)	
2	*A-1646-148-A	H1 BOARD, COMPLETE			1-693-339-11	TUNER/VIF (UK) (KV21X4U)	
3	*A-1646-150-A	H3 BOARD, COMPLETE			4-039-358-01	SCREW (4X16), (+) BV TAPPING	
4	*A-1646-149-A	H2 BOARD, COMPLETE		12	X-4200-286-1	COVER ASSY REAR (SC)	
5	Δ 1-571-433-21	SWITCH PUSH (AC POWER)		14	1-544-727-21	SPEAKER (7.5X13CM)	
6	*A-1624-064-A	F1 BOARD, COMPLETE					
7	4-389-201-11	HOLDER, AC CORD					

6-4. KV-21X4 PICTURE TUBE



The components identified by shading and marked with a triangle are critical for safety. Replace only with the part number specified.

Les composants identifiés par une trame et une marque /Δ/ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

REF NO	PART NO	DESCRIPTION	REMARK	REF NO	PART NO	DESCRIPTION	REMARK
51	X-4200-298-1	BEZNET ASSY	52-57	62	Δ 8-738-784-05	PICTURE TUBE (SD-169) (A51JXH61X)	
52	4-202-465-01	GUIDE, LED LIGHT		63	4-036-189-01	SCREW SELF TAPPING	
53	4-047-464-01	CATCHER PUSH		64	*A-1638-090-A	C BOARD, COMPLETE	
54	4-202-642-01	DOOR		65	4-200-433-01	SPRING, EXTENSION	
55	4-202-643-21	WINDOW ORNAMENTAL		66	Δ 1-406-828-11	COIL DEGAUSSING	
56	4-043-517-01	BUTTON POWER		67	*4-386-622-11	BAND, DGC	
57	4-202-746-11	SPRING, COMPRESSION		68	4-308-870-00	CLIP, LEAD WIRE	
58	4-202-644-11	ORNAMENT, DOOR		69	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM Ø	
59	4-203-128-11	SHEET, BLOTING		70	1-452-032-00	MAGNET, DISK; 10MM Ø	
60	Δ 8-738-783-71	ITC	61-62	71	X-4387-214-1	PERMALLOY ASSY, CORRECTION	
61	Δ 8-451-295-45	DEFLECTION YOKE (Y21PPA2BA)		72	3-701-007-00	BAND, BINDING	

SECTION 7

ELECTRICAL PARTS LIST

When indicating parts by reference number, please include the board name.

CAPACITORS

MF : mF, PF : mmF

COILS

MMH : mH, μ H : mH

The components identified by shading and marked * are critical for safety.
Replace only with the part number specified.

Les composants identifiés par une trame et une marque * sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

F1

A

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS

- All resistors are in ohms
- F : nonflammable

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
	*A-1624-063-A	F1 BOARD, COMPLETE ***** (KV-21C4B/21C4D/21C4E/ 21C4K/21C4R)		< CAPACITOR >			
	*A-1624-064-A	F1 BOARD, COMPLETE ***** (KV-21X4A/21X4B/21X4D/21X4E/ 21X4K/21X4L/21X4R/21X4U)		C002	1-126-968-11	ELECT 100MF	20% 50V
< CONNECTOR >				C003	1-164-492-11	CERAMIC CHIP 0.15MF	10% 16V
CW603	A 1-580-844-11	PIN, CONNECTOR (POWER)		C004	1-163-034-00	CERAMIC CHIP 0.033MF	50V
CW604	A 1-695-292-11	PIN, CONNECTOR (POWER)		C005	1-163-105-00	CERAMIC CHIP 33PF	5% 50V
< FUSE >				C006	1-163-105-00	CERAMIC CHIP 33PF	5% 50V
F601	A 1-576-231-21	FUSE (4A 250V)		C007	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
F601	A *1-533-725-11	HOLDER, FUSE		C008	1-126-965-11	ELECT 22MF	20% 50V
< SWITCH >				C009	1-126-961-11	ELECT 2.2MF	20% 50V
S601	A 1-571-433-21	SWITCH, PUSH (AC POWER)		C011	1-163-243-11	CERAMIC CHIP 47PF	5% 50V
*****				C012	1-163-109-00	CERAMIC CHIP 47PF	5% 50V
	*A-1632-667-A	A BOARD, COMPLETE ***** (KV-21C4B)			1-163-113-00	CERAMIC CHIP 68PF	5% 50V
	*A-1632-662-A	A BOARD, COMPLETE ***** (KV-21C4D)					(KV-21C4D/21C4)
	*A-1632-638-A	A BOARD, COMPLETE ***** (KV-21C4E)		C013	1-163-078-11	CERAMIC CHIP 0.033MF	10% 25V
	*A-1632-668-A	A BOARD, COMPLETE ***** (KV-21C4K)		C014	1-164-346-11	CERAMIC CHIP 1MF	16V
	*A-1632-669-A	A BOARD, COMPLETE ***** (KV-21C4R)		C015	1-163-121-00	CERAMIC CHIP 150PF	5% 50V
	*A-1632-680-A	A BOARD, COMPLETE ***** (KV-21X4A)		C017	1-162-638-11	CERAMIC CHIP 1MF	50V
	*A-1632-677-A	A BOARD, COMPLETE ***** (KV-21X4B)		C018	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
	*A-1632-678-A	A BOARD, COMPLETE ***** (KV-21X4D)		C019	1-163-037-11	CERAMIC CHIP 0.022MF	10% 50V
	*A-1632-651-A	A BOARD, COMPLETE ***** (KV-21X4E)		C020	1-163-038-00	CERAMIC CHIP 0.1MF	25V
	*A-1632-683-A	A BOARD, COMPLETE ***** (KV-21X4K)		C021	1-164-005-11	CERAMIC CHIP 0.47MF	25V
	*A-1632-684-A	A BOARD, COMPLETE ***** (KV-21X4L)		C022	1-126-960-11	ELECT 1MF	20% 50V
	*A-1632-681-A	A BOARD, COMPLETE ***** (KV-21X4R)		C024	1-126-965-11	ELECT 22MF	20% 50V
	*A-1632-682-A	A BOARD, COMPLETE ***** (KV-21X4U)		C025	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
				C026	1-126-965-11	ELECT 22MF	20% 50V
				C027	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
				C028	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
				C029	1-163-077-00	CERAMIC CHIP 0.1MF	50V
				C030	1-163-077-00	CERAMIC CHIP 0.1MF	50V
				C031	1-163-038-00	CERAMIC CHIP 0.1MF	25V
				C034	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
				C035	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
				C036	1-126-965-11	ELECT 22MF	20% 50V
				C037	1-164-346-11	CERAMIC CHIP 1MF	16V
				C038	1-164-346-11	CERAMIC CHIP 1MF	16V
				C039	1-163-205-00	CERAMIC CHIP 0.001MF	10% 50V
				C040	1-163-037-11	CERAMIC CHIP 0.022MF	10% 50V
				C041	1-126-965-11	ELECT 22MF	20% 50V
				C042	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
				C044	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
				C045	1-164-505-11	CERAMIC CHIP 2.2MF	16V
				C046	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
				C099	1-165-320-11	CERAMIC CHIP 0.47MF	10% 16V

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C121	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C313	1-163-137-00	CERAMIC CHIP 680PF	5% 50V
C122	1-163-249-11	CERAMIC CHIP 82PF	5% 50V	C314	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C123	1-163-139-00	CERAMIC CHIP 820PF	5% 50V	C315	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C124	1-163-249-11	CERAMIC CHIP 82PF	5% 50V	C316	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C131	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C317	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C135	1-126-934-11	ELECT 220MF	20% 16V	C319	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C136	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C320	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C162	1-126-967-11	ELECT 47MF	20% 16V	C321	1-126-963-11	ELECT 4.7MF	20% 50V
C201	1-126-965-11	ELECT 22MF	20% 50V	C322	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C202	1-126-941-11	ELECT 470MF	20% 25V	C323	1-163-099-00	CERAMIC CHIP 18PF	5% 50V
C205	1-126-963-11	ELECT 4.7MF	20% 50V	C324	1-163-119-00	CERAMIC CHIP 120PF	5% 50V
C206	1-126-933-11	ELECT 100MF	20% 16V	C325	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C207	1-126-933-11	ELECT 100MF	20% 16V	C326	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C208	1-126-963-11	ELECT 4.7MF	20% 50V	C327	1-163-005-11	CERAMIC CHIP 470PF	10% 50V
C210	1-163-033-91	CERAMIC CHIP 0.022MF	50V	C328	1-163-038-71	CERAMIC CHIP 0.1MF	25V
C211	1-126-965-11	ELECT 22MF	20% 50V	C329	1-163-016-00	CERAMIC CHIP 0.0039MF	10% 50V
C213	1-164-005-11	CERAMIC CHIP 0.47MF	25V	C330	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C214	1-163-017-00	CERAMIC CHIP 0.0047MF	5% 50V	C332	1-126-965-11	ELECT 22MF	20% 50V
C215	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C333	1-107-715-11	ELECT 22MF	20% 16V
		(KV-21C4B/21X4B)		C341	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C216	1-163-109-00	CERAMIC CHIP 47PF	5% 50V	C345	1-163-259-91	CERAMIC CHIP 220PF	5% 50V
C217	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C347	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C218	1-164-005-11	CERAMIC CHIP 0.47MF	25V	C348	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C219	1-126-964-11	ELECT 10MF	20% 50V			(KV-21C4B/21X4B)	
C220	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C349	1-126-965-11	ELECT 22MF	20% 50V
C221	1-163-117-00	CERAMIC CHIP 100PF	5% 50V			(KV-21C4B/21X4B)	
		(KV-21C4B/21X4B)		C353	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C223	1-163-133-00	CERAMIC CHIP 470PF	5% 50V	C354	1-163-005-11	CERAMIC CHIP 470PF	10% 50V
C224	1-163-133-00	CERAMIC CHIP 470PF	5% 50V	C355	1-163-059-91	CERAMIC CHIP 0.01MF	10% 50V
C225	1-126-964-11	ELECT 10MF	20% 50V	C359	1-126-965-11	ELECT 22MF	20% 50V
C226	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C360	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C227	1-163-084-00	CERAMIC CHIP 1.5PF	0.25PF 50V	C401	1-126-967-11	ELECT 47MF	20% 16V
C228	1-163-084-00	CERAMIC CHIP 1.5PF	0.25PF 50V	C402	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C229	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C403	1-164-346-11	CERAMIC CHIP 1MF	16V
C230	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C404	1-164-346-11	CERAMIC CHIP 1MF	16V
C231	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C405	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C232	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C406	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C233	1-163-003-11	CERAMIC CHIP 330PF	10% 50V	C410	1-126-967-11	ELECT 47MF	20% 16V
C234	1-163-003-11	CERAMIC CHIP 330PF	10% 50V	C411	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C235	1-126-964-11	ELECT 10MF	20% 50V	C412	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C236	1-126-964-11	ELECT 10MF	20% 50V	C413	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C240	1-107-823-11	CERAMIC CHIP 0.47MF	10% 16V	C414	1-126-967-11	ELECT 47MF	20% 16V
C242	1-164-346-11	CERAMIC CHIP 1MF	16V	C415	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C243	1-164-346-11	CERAMIC CHIP 1MF	16V	C416	1-126-965-11	ELECT 22MF	20% 50V
C244	1-164-346-11	CERAMIC CHIP 1MF	16V	C417	1-126-965-11	ELECT 22MF	20% 50V
C245	1-164-346-11	CERAMIC CHIP 1MF	16V	C418	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C246	1-126-965-11	ELECT 22MF	20% 50V	C419	1-164-346-11	CERAMIC CHIP 1MF	16V
C247	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V	C420	1-164-346-11	CERAMIC CHIP 1MF	16V
C300	1-126-942-61	ELECT 1000MF	20% 25V	C421	1-164-337-11	CERAMIC CHIP 2.2MF	16V
C301	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C422	1-164-337-11	CERAMIC CHIP 2.2MF	16V
C302	1-163-038-71	CERAMIC CHIP 0.1MF	25V	C423	1-164-337-11	CERAMIC CHIP 2.2MF	16V
C303	1-126-965-11	ELECT 22MF	20% 50V	C424	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C304	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C425	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C305	1-124-257-00	ELECT 2.2MF	20% 50V	C500	1-130-489-00	FILM 0.033MF	5% 50V
C306	1-136-164-00	FILM 0.082MF	5% 50V	C501	1-126-963-11	ELECT 4.7MF	20% 50V
C307	1-163-077-00	CERAMIC CHIP 0.1MF	10% 25V	C502	1-163-077-00	CERAMIC CHIP 0.1MF	50V
C308	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C503	1-126-952-11	ELECT 1000MF	20% 35V
C309	1-126-163-11	ELECT 4.7MF	20% 50V	C504	1-126-968-11	ELECT 100MF	20% 50V
C310	1-163-077-00	CERAMIC CHIP 0.1MF	10% 25V	C505	1-126-941-11	ELECT 470MF	20% 25V
C312	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C506	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V

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The components identified by shading and marked † are critical for safety.
Replace only with the part number specified.

Les composants identifiés par une trame et une marque † sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C507	1-126-965-11	ELECT 22MF 20% 50V		C815	1-162-134-11	CERAMIC 470PF 10% 2KV	
C508	1-130-785-11	MYLAR 0.47MF 10% 100V		C817	1-136-559-11	MYLAR 0.0047MF 10% 400V	
C510	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V		C818	1-136-933-11	FILM 1MF 5% 100V	
C511	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V		C819	1-162-318-11	CERAMIC 0.001MF 10% 500V	
† C601	† 1-136-516-12	† FILM 0.1MF 20% 300V		C820	1-126-951-11	ELECT 470MF 20% 35V	
† C602	† 1-136-516-12	† FILM 0.1MF 20% 300V		C822	1-104-696-11	FILM 0.015MF 10% 100V	
† C603	† 1-117-700-61	† CERAMIC 0.0022MF 99% 250V		C823	1-106-375-12	MYLAR 0.022MF 10% 250V	
† C604	† 1-117-700-61	† CERAMIC 0.0022MF 99% 250V		C824	1-106-367-00	MYLAR 0.01MF 10% 400V	
† C605	† 1-161-964-91	† CERAMIC 0.0047MF 250V		C825	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V	
† C606	† 1-161-964-91	† CERAMIC 0.0047MF 250V		C826	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C610	1-104-665-11	ELECT 100MF 20% 25V		C827	1-163-011-11	CERAMIC CHIP 0.0015MF 10% 50V	
C611	1-136-538-11	FILM 0.001MF 3% 2KV		C828	1-126-960-11	ELECT 1MF 20% 50V	
C612	1-107-929-11	ELECT 10MF 20% 100V		C1200	1-136-165-00	FILM 0.1MF 5% 50V	
C613	1-162-318-11	CERAMIC 0.001MF 10% 500V		C1201	1-136-173-00	FILM 0.47MF 5% 50V	
C614	1-104-666-11	ELECT 220MF 20% 25V		C1202	1-136-173-00	FILM 0.47MF 5% 50V	
C615	1-124-347-00	ELECT 100MF 20% 160V		C1203	1-136-169-00	FILM 0.22MF 5% 50V	
C616	1-162-116-00	CERAMIC 680PF 10% 2KV		C1204	1-136-169-00	FILM 0.22MF 5% 50V	
C617	1-107-929-11	ELECT 10MF 20% 100V		C1205	1-101-004-00	CERAMIC 0.01MF 50V	
C618	1-102-228-00	CERAMIC 470PF 10% 500V		C1206	1-101-004-00	CERAMIC 0.01MF 50V	
C619	1-126-942-61	ELECT 1000MF 20% 25V		C1215	1-136-173-00	FILM 0.47MF 5% 50V	
C621	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V		C1216	1-137-366-11	FILM 0.0022MF 5% 50V	
C622	1-126-965-11	ELECT 22MF 20% 50V		C1217	1-137-366-11	FILM 0.0022MF 5% 50V	
C623	1-111-055-91	ELECT 56MF 20% 25V		< FILTER >			
C624	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V		CF001	1-767-120-21	VIBRATOR, CERAMIC	
C625	1-126-967-11	ELECT 47MF 20% 50V		CF200	1-409-327-00	TRAP, CERAMIC (6.5MHZ)	(KV-21C4B/21X4B)
C626	1-102-228-00	CERAMIC 470PF 10% 500V		< CONNECTOR >			
C627	1-111-097-11	ELECT 0.0022F 20% 35V		CN001	*1-564-508-11	PLUG, CONNECTOR 5P	
C628	1-126-964-11	ELECT 10MF 20% 50V		CN081	*1-568-881-51	PIN, CONNECTOR 6P	
C629	1-126-933-11	ELECT 100MF 20% 16V		CN082	*1-568-880-51	PIN, CONNECTOR 5P	
C630	1-113-473-11	ELECT(BLOCK) 180MF 20% 400V		CN201	*1-568-879-11	PIN, CONNECTOR 4P	
		(KV-21C4B/21C4D/21C4E/21C4K)		CN402	*1-564-512-11	PLUG, CONNECTOR 9P	
		(KV-21X4A/21X4B/21X4D/21X4E/21X4K/21X4L/21X4U)		CN403	*1-564-518-11	PLUG, CONNECTOR 3P	
	1-117-751-11	ELECT(BLOCK) 220MF 20% 400V		CN404	*1-564-519-11	PLUG, CONNECTOR 4P	
		(KV-21C4R/KV-21X4R)		† CN601	† *1-695-292-11	† PIN, CONNECTOR (POWER)	
C631	1-124-910-11	ELECT 47MF 20% 50V		† CN603	† *1-508-765-00	† PIN, CONNECTOR (5MM PITCH) 3P	
C632	1-130-785-11	MYLAR 0.47MF 10% 100V		CN801	*1-580-798-11	CONNECTOR PIN (DY) 6P	
C633	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V		< DIODE >			
C634	1-104-665-11	ELECT 100MF 20% 25V		D002	8-719-982-27	DIODE MTZJ-33C	
C635	1-111-097-11	ELECT 0.0022F 20% 35V		D003	8-719-914-43	DIODE DAN202K	
C636	1-102-228-00	CERAMIC 470PF 10% 500V		D004	8-719-991-33	DIODE 1SS133T-77	
C638	1-163-205-00	CERAMIC CHIP 0.001MF 10% 50V		D005	8-719-914-43	DIODE DAN202K	
C639	1-102-228-00	CERAMIC 470PF 10% 500V		D006	8-719-914-43	DIODE DAN202K	
C640	1-102-110-00	CERAMIC 220PF 10% 50V		D007	8-719-914-43	DIODE DAN202K	
C641	1-106-228-00	MYLAR 0.22MF 10% 100V		D009	8-719-976-99	DIODE DTZ5.1B	
C645	1-104-666-11	ELECT 220MF 20% 25V		D011	8-719-976-99	DIODE DTZ5.1B	
C646	1-163-038-00	CERAMIC CHIP 0.1MF 25V		D012	8-719-992-02	DIODE RB705D	
C647	1-163-038-00	CERAMIC CHIP 0.1MF 25V		D014	8-719-056-84	DIODE UDZ-TE-17-7.5B	
C800	1-107-650-11	ELECT 3.3MF 20% 250V		D301	8-719-991-33	DIODE 1SS133T-77	
C801	1-129-746-00	FILM 0.039MF 10% 400V		D302	8-719-991-33	DIODE 1SS133T-77	
C802	1-136-079-00	FILM 0.01MF 3% 2KV		D306	8-719-976-99	DIODE DTZ5.1B	
C803	1-136-109-00	FILM 0.68MF 5% 200V		D307	8-719-914-43	DIODE DAN202K	(KV-2L C4B/21X4B)
C804	1-126-959-11	ELECT 0.47MF 20% 50V		D308	8-719-991-33	DIODE 1SS133T-77	(KV-2L C4B/21X4B)
C805	1-102-228-00	CERAMIC 470PF 10% 500V		D338	8-719-914-43	DIODE DAN202K	
C806	1-102-244-00	CERAMIC 220PF 10% 500V		D401	8-719-109-97	DIODE RD6.8ES-B2	
C807	1-107-651-11	ELECT 4.7MF 20% 250V		D402	8-719-109-97	DIODE RD6.8ES-B2	
C809	1-162-134-11	CERAMIC 470PF 10% 2KV		D403	8-719-109-97	DIODE RD6.8ES-B2	
C810	1-129-702-00	FILM 0.001MF 10% 400V		D404	8-719-109-97	DIODE RD6.8ES-B2	
C812	1-163-121-00	CERAMIC CHIP 150PF 5% 50V		D405	8-719-109-97	DIODE RD6.8ES-B2	
C813	1-162-115-00	CERAMIC 330PF 10% 2KV					
C814	1-136-159-00	FILM 0.033MF 5% 50V					

KV-21C4/21X4

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REF.NO.	PART NO.	DESCRIPTION
D406	8-719-109-97	DIODE RD6.8ES-B2
D407	8-719-109-97	DIODE RD6.8ES-B2
D408	8-719-110-14	DIODE RD9.1ES-B3
D409	8-719-110-14	DIODE RD9.1ES-B3
D410	8-719-110-14	DIODE RD9.1ES-B3
D411	8-719-991-33	DIODE 1SS133T-77
D412	8-719-109-97	DIODE RD6.8ES-B2
D413	8-719-991-33	DIODE 1SS133T-77
D414	8-719-056-84	DIODE UDZ-TE-17-7.5B
D415	8-719-110-14	DIODE RD9.1ES-B3
D416	8-719-056-84	DIODE UDZ-TE-17-7.5B
D417	8-719-056-84	DIODE UDZ-TE-17-7.5B
D418	8-719-056-84	DIODE UDZ-TE-17-7.5B
D421	8-719-109-97	DIODE RD6.8ES-B2
D501	8-719-302-43	DIODE ELIZ
D602	8-719-991-33	DIODE 1SS133T-77
D603	8-719-109-97	DIODE RD6.8ES-B2
D604	8-719-302-43	DIODE ELIZ
D605	8-719-302-43	DIODE ELIZ
D606	8-719-028-89	DIODE EK04.V1
D607	8-719-046-78	DIODE EG-1Z-V1
D608	8-719-302-43	DIODE ELIZ
D609	8-719-312-10	DIODE RU4AM-T3
D610	8-719-025-88	DIODE GBU4JL-6088
D612	8-719-046-76	DIODE RU3YX-LF-C4
D613	8-719-058-38	DIODE FMN-G12S
D614	8-719-109-97	DIODE RD6.8ES-B2
D615	8-719-302-43	DIODE ELIZ
D616	8-719-110-03	DIODE RD7.5ES-B2
D617	8-719-991-33	DIODE 1SS133T-77
D619	8-719-046-78	DIODE EG-1Z-V1
D620	8-719-110-14	DIODE RD9.1ES-B3
D621	8-719-058-38	DIODE FMN-G12S
D622	8-719-991-33	DIODE 1SS133T-77
D623	8-719-924-16	DIODE MTZJ-T-77-24
D625	8-719-991-33	DIODE 1SS133T-77
D626	8-719-302-43	DIODE ELIZ
D627	8-719-991-33	DIODE 1SS133T-77
D801	8-719-950-57	DIODE BYD33G
D802	8-719-302-43	DIODE ELIZ
D803	8-719-945-80	DIODE ERC06-15S
D805	8-719-928-08	DIODE ERD28-08S
D806	8-719-302-43	DIODE ELIZ
D807	8-719-991-33	DIODE 1SS133T-77
D809	8-719-302-43	DIODE ELIZ
D1200	8-719-109-72	DIODE RD3.9ES-B2
< FUSE >		
F601	1-535-143-31	LEAD, JUMPER (15.0MM)
< FERRITE BEAD >		
FB001	1-412-911-11	INDUCTOR, FERRITE BEAD
FB002	1-412-911-11	INDUCTOR, FERRITE BEAD
FB003	1-412-911-11	INDUCTOR, FERRITE BEAD
FB600	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH
FB601	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH
FB602	1-412-911-11	INDUCTOR, FERRITE BEAD
FB604	1-535-465-11	LEAD, JUMPER (5.0MM)
FB605	1-412-911-11	INDUCTOR, FERRITE BEAD
FB606	1-412-911-11	INDUCTOR, FERRITE BEAD

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REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
	FB607	1-412-911-11	INDUCTOR, FERRITE BEAD	
			< ENCAPSULATED FILTER >	
	FL201	1-239-803-11	FILTER, EMI	
			< IC >	
	IC002	8-759-437-34	IC ST24W04FB6	
	IC004	8-759-073-00	IC TEA2114	
	IC005	8-759-510-54	IC PST572D	
	IC200	8-759-481-43	IC MSP3410D-PP-B3 (KV-21C4B/21C4E/21C4K)	
			(KV-21X4B/21X4E/21X4K/21X4L/21X4U)	
		8-759-429-97	IC MSP3400C-PP-C6 (KV-21C4D/21C4R)	
			(KV-21X4A/21X4D/21X4R)	
	IC201	8-759-502-21	IC TDA2822M	
	IC301	8-759-333-45	IC MC44002P	
	IC302	8-759-333-46	IC MC44140P	
	IC401	8-759-064-91	IC NJM2233BL	
	IC501	8-759-192-71	IC STV9379	
		4-202-373-01	SPRING, IC (IC501)	
	IC600	8-749-924-99	IC STR-S6707	
		4-202-373-01	SPRING, IC (IC600)	
	IC601	8-749-010-64	PHOTO COUPLER PC123FY2	
	IC602	8-749-920-61	IC SE-135N	
	IC603	8-759-507-29	IC LM7808CT	
	IC604	8-759-457-41	IC KA76L05Z	
	IC605	8-759-510-52	IC L4941BV	
		4-202-373-01	SPRING, IC (IC605)	
	IC1200	8-759-473-02	IC TDA7269	
		4-202-710-01	SPACER, INSULATING (IC1200)	
		4-202-373-01	SPRING, IC (IC1200)	
			< SOCKET >	
	J401	1-695-551-11	SOCKET 21P	
			< COIL >	
	L001	1-414-181-11	INDUCTOR 4.7UH	
	L108	1-414-740-21	INDUCTOR 4.7UH	
	L111	1-408-408-00	INDUCTOR 8.2UH	
	L112	1-408-397-00	INDUCTOR 1UH	
	L113	1-408-408-00	INDUCTOR 8.2UH	
	L200	1-408-406-00	INDUCTOR 5.6UH	
			(KV-21C4B/21X4B)	
	L201	1-535-465-11	LEAD, JUMPER (5.0MM)	
	L203	1-410-385-11	INDUCTOR CHIP 22UH	
	L204	1-410-385-11	INDUCTOR CHIP 22UH	
	L301	1-410-989-11	INDUCTOR CHIP 0.47UH	
	L302	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
	L401	1-535-465-11	LEAD, JUMPER (5.0MM)	
	L402	1-535-465-11	LEAD, JUMPER (5.0MM)	
	L403	1-535-465-11	LEAD, JUMPER (5.0MM)	
	L404	1-535-465-11	LEAD, JUMPER (5.0MM)	
	L405	1-408-409-00	INDUCTOR 10UH	
	L406	1-408-409-00	INDUCTOR 10UH	
	L407	1-408-409-00	INDUCTOR 10UH	
	L408	1-408-409-00	INDUCTOR 10UH	
	L409	1-410-985-11	INDUCTOR CHIP 0.22UH	
	L410	1-408-409-00	INDUCTOR 10UH	
	L411	1-408-409-00	INDUCTOR 10UH	
	L412	1-410-985-11	INDUCTOR CHIP 0.22UH	

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
L501	1-412-525-31	INDUCTOR	10UH	Q410	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
L609	1-414-743-21	INDUCTOR	47UH	Q411	8-729-620-06	TRANSISTOR 2SC3052-EF	
L611	1-414-743-21	INDUCTOR	47UH	Q500	8-729-017-06	TRANSISTOR 2SC4793	
L612	1-412-522-41	INDUCTOR	5.6UH	Q501	8-729-620-06	TRANSISTOR 2SC3052-EF	
L613	1-412-522-41	INDUCTOR	5.6UH				
L800	1-412-553-11	INDUCTOR	3.3MMH	Q601	8-729-025-04	TRANSISTOR 2SC3852A	
L801	1-420-872-00	COIL, AIR-CORE		Q602	8-729-320-28	TRANSISTOR 2SA1859	
L802	1-411-635-11	COIL, AIR-CORE		Q603	8-729-027-08	TRANSISTOR 2SC2389STP-R	
L803	1-459-390-00	COIL (WITH CORE)		Q604	8-729-024-35	TRANSISTOR 2SC2808STP-R	
L804	1-459-105-21	COIL (WITH CORE)		Q606	8-729-029-56	TRANSISTOR DTA144ESA	
L805	1-412-531-31	INDUCTOR	33UH	Q608	8-729-027-56	TRANSISTOR DTC143TKA-T146	
L806	1-459-652-12	HLC		Q617	8-729-119-78	TRANSISTOR 2SC2785-HFE	
L807	1-535-465-11	LEAD, JUMPER (5.0MM)		Q801	8-729-140-50	TRANSISTOR 2SC3209LK	
L808	1-535-143-71	LEAD, JUMPER (7.5MM)		Q802	8-729-033-85	TRANSISTOR S2000N-16E305A	
< IC LINK >				4-382-854-11	SCREW (M3X10), P, SW (+)	(Q802)	
PS600 †	1-532-686-21	LINK, IC 2.7A (ICP-F75)		Q803	8-729-027-59	TRANSISTOR DTC144EKA-T146	
PS601 †	1-532-686-21	LINK, IC 2.7A (ICP-F75)		Q804	8-729-019-01	TRANSISTOR 2SD2394-EF	
PS603 †	1-532-686-21	LINK, IC 2.7A (ICP-F75)		*4-368-683-11	SPRING, TRANSISTOR (Q804)		
< TRANSISTOR >				Q805	8-729-140-96	TRANSISTOR 2SD774-34	
Q002	8-729-620-06	TRANSISTOR 2SC3052-EF		Q1200	8-729-620-06	TRANSISTOR 2SC2412K-T-146-R	
Q006	8-729-216-22	TRANSISTOR 2SA1162-G		Q1201	8-729-620-06	TRANSISTOR 2SC2412K-T-146-R	
Q007	8-729-620-06	TRANSISTOR 2SC3052-EF		< RESISTOR >			
Q008	8-729-620-06	TRANSISTOR 2SC3052-EF		JR039	1-216-295-00	CONDUCTOR, CHIP	
Q009	8-729-620-06	TRANSISTOR 2SC3052-EF		R001	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
Q011	8-729-027-59	TRANSISTOR DTC144EKA-T146		R002	1-216-025-00	METAL GLAZE 100 5%	1/10W
Q012	8-729-620-06	TRANSISTOR 2SC3052-EF		R003	1-216-025-00	METAL GLAZE 100 5%	1/10W
Q013	8-729-620-06	TRANSISTOR 2SC3052-EF		R004	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
Q014	8-729-620-06	TRANSISTOR 2SC3052-EF		R005	1-216-174-00	METAL GLAZE 100 5%	1/8W
Q107	8-729-119-78	TRANSISTOR 2SC2785-HFE		R006	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
Q110	8-729-620-06	TRANSISTOR 2SC3052-EF		R007	1-216-089-00	METAL GLAZE 47K 5%	1/10W
Q118	8-729-620-06	TRANSISTOR 2SC3052-EF		R012	1-249-437-11	CARBON 47K 5%	1/4W
Q200	8-729-900-53	TRANSISTOR DTC114EKA		R013	1-216-069-00	METAL GLAZE 6.8K 5%	1/10W
Q201	8-729-027-56	TRANSISTOR DTC143TKA-T146		R014	1-216-071-00	METAL GLAZE 8.2K 5%	1/10W
Q202	8-729-027-56	TRANSISTOR DTC143TKA-T146		R016	1-216-069-00	METAL GLAZE 6.8K 5%	1/10W
Q204	8-729-620-06	TRANSISTOR 2SC3052-EF		R017	1-216-095-00	METAL GLAZE 82K 5%	1/10W
Q205	8-729-620-06	TRANSISTOR 2SC3052-EF		R018	1-216-295-00	CONDUCTOR, CHIP	
Q207	8-729-620-06	TRANSISTOR 2SC3052-EF (KV-21C4B/21X4B)		R019	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W
Q208	8-729-216-22	TRANSISTOR 2SA1162-G (KV-21C4B/21X4B)		R020	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
Q209	8-729-620-06	TRANSISTOR 2SC3052-EF (KV-21C4B/21X4B)		R021	1-216-258-00	METAL GLAZE 330K 5%	1/8W
Q210	8-729-620-06	TRANSISTOR 2SC3052-EF		R022	1-216-081-00	METAL GLAZE 22K 5%	1/10W
Q300	8-729-620-06	TRANSISTOR 2SC3052-EF		R023	1-216-041-00	METAL GLAZE 470 5%	1/10W
Q301	8-729-900-53	TRANSISTOR DTC114EK		R025	1-216-091-00	METAL GLAZE 56K 5%	1/10W
Q302	8-729-900-53	TRANSISTOR DTC114EK		R026	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
Q303	8-729-900-53	TRANSISTOR DTC114EK		R027	1-216-077-00	METAL GLAZE 15K 5%	1/10W
Q304	8-729-900-53	TRANSISTOR DTC114EK		R029	1-216-039-00	METAL GLAZE 390 5%	1/10W
Q305	8-729-900-53	TRANSISTOR DTC114EK		R030	1-215-900-11	METAL OXIDE 22K 5%	2W F
Q306	8-729-900-53	TRANSISTOR DTC114EK		R031	1-216-025-00	METAL GLAZE 100 5%	1/10W
Q307	8-729-026-41	TRANSISTOR 2SA933AS-QRT (KV-21C4B/21X4B)		R032	1-216-025-00	METAL GLAZE 100 5%	1/10W
Q310	8-729-620-06	TRANSISTOR 2SC3052-EF		R033	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
Q311	8-729-620-06	TRANSISTOR 2SC3052-EF		R034	1-216-073-00	METAL GLAZE 10K 5%	1/10W
Q312	8-729-620-06	TRANSISTOR 2SC3052-EF		R036	1-216-295-00	CONDUCTOR, CHIP	
Q402	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R037	1-216-093-00	METAL GLAZE 68K 5%	1/10W
Q403	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R038	1-216-295-00	CONDUCTOR, CHIP	
Q404	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R040	1-216-073-00	METAL GLAZE 10K 5%	1/10W
Q405	8-729-620-06	TRANSISTOR 2SC3052-EF		R041	1-216-206-00	METAL GLAZE 2.2K 5%	1/8W
Q406	8-729-620-06	TRANSISTOR 2SC3052-EF		R042	1-216-027-00	METAL GLAZE 120 5%	1/10W
Q407	8-729-620-06	TRANSISTOR 2SC3052-EF		R043	1-216-022-00	METAL GLAZE 75 5%	1/10W
Q408	8-729-620-06	TRANSISTOR 2SC3052-EF		R044	1-216-073-00	METAL GLAZE 10K 5%	1/10W
Q409	8-729-620-06	TRANSISTOR 2SC3052-EF		R045	1-216-081-00	METAL GLAZE 22K 5%	1/10W
				R046	1-216-254-00	METAL GLAZE 220K 5%	1/8W

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R047	1-216-075-00	METAL GLAZE 12K	5% 1/10W	R221	1-216-033-00	METAL GLAZE 220	5% 1/10W (KV-21C4B/21X4B)
R049	1-216-041-00	METAL GLAZE 470	5% 1/10W	R222	1-216-001-00	METAL GLAZE 10	5% 1/10W (KV-21C4B/21X4B)
R050	1-216-089-00	METAL GLAZE 47K	5% 1/10W				
R051	1-216-174-00	METAL GLAZE 100	5% 1/8W	R223	1-216-041-00	METAL GLAZE 470	5% 1/10W (KV-21C4B/21X4B)
R052	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R224	1-216-025-00	METAL GLAZE 100	5% 1/10W (KV-21C4B/21X4B)
R053	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R225	1-216-037-00	METAL GLAZE 330	5% 1/10W
R054	1-216-129-00	METAL GLAZE 2.2M	5% 1/10W	R226	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R057	1-216-198-91	METAL GLAZE 1K	5% 1/8W	R227	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R058	1-216-198-91	METAL GLAZE 1K	5% 1/8W	R228	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W (KV-21C4B/21X4B)
R064	1-216-222-00	METAL GLAZE 10K	5% 1/8W	R229	1-216-073-00	METAL GLAZE 10K	5% 1/10W (KV-21C4B/21X4B)
R065	1-216-073-00	METAL GLAZE 10K	5% 1/10W				
R066	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R230	1-216-025-00	METAL GLAZE 100	5% 1/10W (KV-21C4B/21X4B)
R067	1-216-081-00	METAL GLAZE 22K	5% 1/10W	R231	1-216-035-00	METAL GLAZE 270	5% 1/10W (KV-21C4B/21X4B)
R068	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R236	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R069	1-216-081-00	METAL GLAZE 22K	5% 1/10W	R237	1-216-093-00	METAL GLAZE 68K	5% 1/10W
R070	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R238	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R071	1-216-174-00	METAL GLAZE 100	5% 1/8W	R239	1-216-093-00	METAL GLAZE 68K	5% 1/10W
R072	1-216-174-00	METAL GLAZE 100	5% 1/8W	R240	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R078	1-216-071-00	METAL GLAZE 8.2K	5% 1/10W	R301	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R088	1-216-043-91	METAL GLAZE 560	5% 1/10W	R302	1-216-037-00	METAL GLAZE 330	5% 1/10W
R089	1-216-043-91	METAL GLAZE 560	5% 1/10W	R303	1-216-090-00	METAL GLAZE 51K	5% 1/10W
R090	1-216-043-91	METAL GLAZE 560	5% 1/10W	R304	1-216-025-00	METAL GLAZE 100	5% 1/10W
R097	1-216-051-00	METAL GLAZE 1.2K	5% 1/10W	R305	1-216-025-00	METAL GLAZE 100	5% 1/10W
R098	1-216-051-00	METAL GLAZE 1.2K	5% 1/10W	R306	1-216-113-00	METAL GLAZE 470K	5% 1/10W
R099	1-216-200-11	METAL GLAZE 1.2K	5% 1/8W	R307	1-216-121-91	METAL GLAZE 1M	5% 1/10W
R110	1-216-174-00	METAL GLAZE 100	5% 1/8W	R308	1-216-085-00	METAL GLAZE 33K	5% 1/10W
R111	1-216-174-00	METAL GLAZE 100	5% 1/8W	R309	1-216-121-91	METAL GLAZE 1M	5% 1/10W
R112	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R310	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R113	1-216-113-00	METAL GLAZE 470K	5% 1/10W	R311	1-216-025-00	METAL GLAZE 100	5% 1/10W
R114	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R312	1-216-097-00	METAL GLAZE 100K	5% 1/10W
R115	1-216-190-00	METAL GLAZE 470	5% 1/8W	R313	1-216-045-00	METAL GLAZE 680	5% 1/10W
R116	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R314	1-216-045-00	METAL GLAZE 680	5% 1/10W
R117	1-216-222-00	METAL GLAZE 10K	5% 1/8W	R315	1-216-045-00	METAL GLAZE 680	5% 1/10W
R118	1-216-069-00	METAL GLAZE 6.8K	5% 1/10W	R316	1-216-033-00	METAL GLAZE 220	5% 1/10W
R119	1-216-031-00	METAL GLAZE 180	5% 1/10W	R317	1-216-033-00	METAL GLAZE 220	5% 1/10W
R120	1-216-041-00	METAL GLAZE 470	5% 1/10W	R318	1-216-021-00	METAL GLAZE 68	5% 1/10W
R124	1-216-025-00	METAL GLAZE 100	5% 1/10W	R322	1-216-022-00	METAL GLAZE 75	5% 1/10W
R125	1-216-025-00	METAL GLAZE 100	5% 1/10W	R323	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R126	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W	R325	1-216-089-00	METAL GLAZE 47K	5% 1/10W
R134	1-216-037-00	METAL GLAZE 330	5% 1/10W	R326	1-216-041-00	METAL GLAZE 470	5% 1/10W
R163	1-216-029-00	METAL GLAZE 150	5% 1/10W	R327	1-216-097-00	METAL GLAZE 100K	5% 1/10W
R174	1-216-033-00	METAL GLAZE 220	5% 1/10W	R328	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R200	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R332	1-216-077-00	METAL GLAZE 15K	5% 1/10W
R202	1-216-097-00	METAL GLAZE 100K	5% 1/10W	R333	1-216-037-00	METAL GLAZE 330	5% 1/10W
R203	1-216-077-00	METAL GLAZE 15K	5% 1/10W	R334	1-216-033-00	METAL GLAZE 220	5% 1/10W
R204	1-216-077-00	METAL GLAZE 15K	5% 1/10W	R335	1-216-025-00	METAL GLAZE 100	5% 1/10W
R205	1-216-295-00	CONDUCTOR, CHIP		R336	1-216-025-00	METAL GLAZE 100	5% 1/10W
R206	1-249-399-11	CARBON 33	5% 1/4W	R337	1-216-025-00	METAL GLAZE 100	5% 1/10W
R208	1-216-295-00	CONDUCTOR, CHIP		R338	1-216-071-00	METAL GLAZE 8.2K	5% 1/10W
R209	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R339	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W
R210	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R340	1-216-238-91	METAL GLAZE 47K	5% 1/8W
R211	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R341	1-216-069-00	METAL GLAZE 6.8K	5% 1/10W
R213	1-216-174-00	METAL GLAZE 100	5% 1/8W	R342	1-216-186-00	METAL GLAZE 330	5% 1/8W
R214	1-216-174-00	METAL GLAZE 100	5% 1/8W	R343	1-216-295-00	CONDUCTOR, CHIP	
R215	1-216-073-00	METAL GLAZE 10K	5% 1/10W				
R218	1-216-037-00	METAL GLAZE 330	5% 1/10W (KV-21C4B/21X4B)				
R219	1-216-049-00	METAL GLAZE 1K	5% 1/10W (KV-21C4B/21X4B)				
R220	1-216-045-00	METAL GLAZE 680	5% 1/10W (KV-21C4B/21X4B)				

The components identified by shading and marked  are critical for safety.
Replace only with the part number specified.

Les composants identifiés par une trame et une marque  sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

KV-21C4/21X4

A

REF.NO.	PART NO.	DESCRIPTION	REMARK
R344	1-216-295-00	CONDUCTOR, CHIP	
R345	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R347	1-216-041-00	METAL GLAZE 470 5%	1/10W (KV-21C4B/21X4B)
R348	1-216-073-00	METAL GLAZE 10K 5%	1/10W (KV-21C4B/21X4B)
R349	1-216-101-00	METAL GLAZE 150K 5%	1/10W (KV-21C4B/21X4B)
R350	1-216-033-00	METAL GLAZE 220 5%	1/10W (KV-21C4B/21X4B)
R351	1-218-463-91	METAL GLAZE 8.2M 5%	1/10W
R354	1-216-033-00	METAL GLAZE 220 5%	1/10W
R355	1-216-121-91	METAL GLAZE 1M 5%	1/10W
R359	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R360	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R361	1-216-022-00	METAL GLAZE 75 5%	1/10W
R362	1-216-022-00	METAL GLAZE 75 5%	1/10W
R363	1-216-022-00	METAL GLAZE 75 5%	1/10W
R364	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R365	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R366	1-216-041-00	METAL GLAZE 470 5%	1/10W
R367	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R368	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R369	1-216-238-91	METAL GLAZE 47K 5%	1/8W
R371	1-216-192-00	METAL GLAZE 560 5%	1/8W
R372	1-216-043-91	METAL GLAZE 560 5%	1/10W
R401	1-216-041-00	METAL GLAZE 470 5%	1/10W
R402	1-247-807-31	CARBON 100 5%	1/4W
R403	1-247-807-31	CARBON 100 5%	1/4W
R404	1-216-022-00	METAL GLAZE 75 5%	1/10W
R405	1-216-113-00	METAL GLAZE 470K 5%	1/10W
R406	1-216-091-00	METAL GLAZE 56K 5%	1/10W
R407	1-216-691-11	METAL CHIP 47K 0.50%	1/10W
R408	1-216-691-11	METAL CHIP 47K 0.50%	1/10W
R409	1-216-691-11	METAL CHIP 47K 0.50%	1/10W
R410	1-216-022-00	METAL GLAZE 75 5%	1/10W
R411	1-216-091-00	METAL GLAZE 56K 5%	1/10W
R412	1-216-041-00	METAL GLAZE 470 5%	1/10W
R413	1-216-113-00	METAL GLAZE 470K 5%	1/10W
R414	1-260-311-11	CARBON 39 5%	1/2W
R415	1-260-311-11	CARBON 39 5%	1/2W
R416	1-216-022-00	METAL GLAZE 75 5%	1/10W
R417	1-216-025-00	METAL GLAZE 100 5%	1/10W
R418	1-216-113-00	METAL GLAZE 470K 5%	1/10W
R419	1-216-113-00	METAL GLAZE 470K 5%	1/10W
R420	1-247-807-31	CARBON 100 5%	1/4W
R421	1-247-807-31	CARBON 100 5%	1/4W
R422	1-216-691-11	METAL CHIP 47K 0.50%	1/10W
R423	1-216-691-11	METAL CHIP 47K 0.50%	1/10W
R424	1-216-691-11	METAL CHIP 47K 0.50%	1/10W
R425	1-216-651-11	METAL CHIP 1K 0.50%	1/10W
R426	1-216-651-11	METAL CHIP 1K 0.50%	1/10W
R427	1-216-651-11	METAL CHIP 1K 0.50%	1/10W
R428	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W
R429	1-216-188-00	METAL GLAZE 390 5%	1/8W
R430	1-216-001-00	METAL GLAZE 10 5%	1/10W
R431	1-216-041-00	METAL GLAZE 470 5%	1/10W
R432	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R433	1-216-051-00	METAL GLAZE 1.2K 5%	1/10W
R434	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
R435	1-216-049-00	METAL GLAZE 1K 5%	1/10W

REF.NO.	PART NO.	DESCRIPTION	REMARK
R436	1-216-001-00	METAL GLAZE 10 5%	1/10W
R437	1-216-017-00	METAL GLAZE 47 5%	1/10W
R501	1-216-675-11	METAL CHIP 10K 0.50%	1/10W
R502	1-216-675-11	METAL CHIP 10K 0.50%	1/10W
R503	1-216-218-00	METAL GLAZE 6.8K 5%	1/8W
R504	1-216-077-00	METAL GLAZE 15K 5%	1/10W
R505	1-216-079-00	METAL GLAZE 18K 5%	1/10W
R506	1-216-669-11	METAL CHIP 5.6K 0.50%	1/10W
R507	1-216-350-11	METAL OXIDE 1.2 5%	1W F
R508	1-215-865-11	METAL OXIDE 220 5%	1W F
R509	1-249-383-11	CARBON 1.5 5%	1/4W F
R513	1-249-429-11	CARBON 10K 5%	1/4W
R514	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R515	1-216-069-00	METAL GLAZE 6.8K 5%	1/10W
R516	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R601	1-202-962-11	WIREWOUND 3.3 5%	10W
R602	1-249-417-11	CARBON 1K 5%	1/4W
R603	1-215-898-11	METAL OXIDE 10K 5%	2W F
R604	1-215-902-11	METAL OXIDE 47K 5%	2W F
R605	1-216-365-00	METAL OXIDE 0.47 5%	2W F
R606	1-535-143-00	LEAD, JUMPER (10.00MM)	
R607	1-215-858-00	METAL OXIDE 15 5%	1W F
R608	1-216-365-00	METAL OXIDE 0.47 5%	2W F
R609	1-249-420-11	CARBON 1.8K 5%	1/4W
R610	1-249-415-11	CARBON 680 5%	1/4W
R611	1-216-354-11	METAL OXIDE 2.7 5%	1W F
R612	1-260-135-11	CARBON 1M 5%	1/2W
R613	1-249-417-11	CARBON 1K 5%	1/4W
R614	1-218-265-11	METAL 8.2M 5%	1W
R615	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R616	1-215-479-00	METAL 270K 1%	1/4W
R617	1-215-877-11	METAL OXIDE 22K 5%	1W F
R618	1-247-863-91	CARBON 22K 5%	1/4W
R619	1-249-424-11	CARBON 3.9K 5%	1/4W
R620	1-247-895-91	CARBON 470K 5%	1/4W
R621	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R622	1-249-437-11	CARBON 47K 5%	1/4W
R623	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R625	1-249-426-11	CARBON 5.6K 5%	1/4W
R626	1-535-465-11	LEAD, JUMPER (5.0MM)	
R628	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R629	1-215-857-11	METAL OXIDE 10 5%	1W F
R630	1-216-371-00	METAL OXIDE 1.5 5%	2W F
R631	1-216-392-11	METAL OXIDE 1.8 5%	3W F
R632	1-247-807-31	CARBON 100 5%	1/4W
R634	1-249-397-11	CARBON 22 5%	1/4W F
R635	1-249-437-11	CARBON 47K 5%	1/4W
R636	1-249-417-11	CARBON 1K 5%	1/4W
R637	1-247-815-91	CARBON 220 5%	1/4W
R638	1-247-863-91	CARBON 22K 5%	1/4W
R645	1-249-422-11	CARBON 2.7K 5%	1/4W
R646	1-249-382-11	CARBON 1.2 5%	1/4W F
R647	1-202-933-61	FUSIBLE 0.1 10%	1/2W F
R648	1-249-407-11	CARBON 150 5%	1/4W
R651	1-215-902-11	METAL OXIDE 47K 5%	2W F
R800	1-215-887-00	METAL OXIDE 150 5%	2W F
R801	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R802	1-216-174-00	METAL GLAZE 100 5%	1/8W
R803	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R804	1-215-917-11	METAL OXIDE 1K 5%	3W F

KV-21C4/21X4

A**C**

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R805	1-215-897-11	METAL OXIDE 6.8K 5% 2W	F	< CRYSTAL >			
R806	1-216-350-11	METAL OXIDE 1.2 5% 1W	F	X201	1-760-628-11	VIBRATOR, CRYSTAL	
R807	1-249-399-11	CARBON 33 5% 1/4W		X301	1-760-907-21	VIBRATOR, CRYSTAL	
R808	1-202-813-00	SOLID 22K 10% 1/2W		X302	1-760-710-21	VIBRATOR, CRYSTAL	
R810	1-247-895-91	CARBON 470K 5% 1/4W		*****			
R813	1-216-295-00	CONDUCTOR, CHIP		*A-1638-102-A	C BOARD, COMPLETE		
R814	1-217-811-11	FUSIBLE 0.47 5% 1/4W			*****		
R815	1-216-101-00	METAL GLAZE 150K 5% 1/10W			(KV-21C4B/21C4D/21C4E/21C4K/21C4R)		
R816	1-216-366-00	METAL OXIDE 0.56 5% 2W	F	*A-1638-090-A	C BOARD, COMPLETE		
R817	1-216-447-00	METAL OXIDE 27 5% 2W	F		*****		
R818	1-202-813-00	SOLID 22K 10% 1/2W			(KV-21X4A/21X4B/21X4D/21X4E/21X4K/21X4L/21X4R/21X4U)		
R819	1-249-441-11	CARBON 100K 5% 1/4W		< CAPACITOR >			
R820	1-247-713-51	CARBON 1K 5% 1W	F	C701	1-102-115-00	CERAMIC 560PF 10% 50V	
R821	1-216-295-00	CONDUCTOR, CHIP		C702	1-102-115-00	CERAMIC 560PF 10% 50V	
R822	1-216-103-00	METAL GLAZE 180K 5% 1/10W		C703	1-102-115-00	CERAMIC 560PF 10% 50V	
R823	1-249-413-11	CARBON 470 5% 1/4W		C704	1-102-824-00	CERAMIC 470PF 5% 50V	
R824	1-216-125-00	METAL GLAZE 1.5M 5% 1/10W		C705	1-102-824-00	CERAMIC 470PF 5% 50V	
R825	1-216-107-00	METAL GLAZE 270K 5% 1/10W		C706	1-102-824-00	CERAMIC 470PF 5% 50V	
R826	1-216-296-00	CONDUCTOR, CHIP		C707	1-107-651-11	ELECT 4.7MF 20% 250V	
R828	1-216-115-00	METAL GLAZE 560K 5% 1/10W		C709	1-162-114-00	CERAMIC 0.0047MF 2KV	
R829	1-535-143-71	LEAD, JUMPER (7.5MM)		C710	1-126-967-11	ELECT 47MF 20% 16V	
R830	1-216-295-00	CONDUCTOR, CHIP		C711	1-101-880-00	CERAMIC 47PF 5% 50V	
R834	1-535-143-11	LEAD, JUMPER (10.0MM)		C712	1-102-820-00	CERAMIC 330PF 5% 50V	
R841	1-217-811-11	FUSIBLE 0.47 5% 1/4W		C713	1-101-880-00	CERAMIC 47PF 5% 50V	
R862	1-215-902-11	METAL OXIDE 47K 5% 2W	F	< CONNECTOR >			
R1200	1-216-206-00	METAL GLAZE 2.2K 5% 1/8W		CNC71	*1-568-881-51	PIN, CONNECTOR 6P	
R1201	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W		CNC72	*1-568-880-51	PIN, CONNECTOR 5P	
R1202	1-216-073-71	METAL GLAZE 10K 5% 1/10W		CNC73	1-695-915-11	TAB (CONTACT)	
R1203	1-216-065-71	METAL GLAZE 4.7K 5% 1/10W		CNC76	1-695-915-11	TAB (CONTACT)	
R1204	1-216-222-00	METAL GLAZE 10K 5% 1/8W		< DIODE >			
R1205	1-216-222-00	METAL GLAZE 10K 5% 1/8W		D701	8-719-991-33	DIODE 1SS133T-77	
R1208	1-212-849-00	FUSIBLE 4.7 5% 1/4W	F	D702	8-719-991-33	DIODE 1SS133T-77	
R1209	1-212-849-00	FUSIBLE 4.7 5% 1/4W	F	D703	8-719-991-33	DIODE 1SS133T-77	
R1211	1-249-424-11	CARBON 3.9K 5% 1/4W		D704	8-719-991-33	DIODE 1SS133T-77	
R1212	1-249-424-11	CARBON 3.9K 5% 1/4W		D705	8-719-991-33	DIODE 1SS133T-77	
< RELAY >				D706	8-719-991-33	DIODE 1SS133T-77	
RY600	† 1-755-018-11	RELAY		D707	8-719-991-33	DIODE 1SS133T-77	
< TRANSFORMER >				D708	8-719-991-33	DIODE 1SS133T-77	
T601	† 1-427-962-21	TRANSFORMER, LINE FILTER		D709	8-719-991-33	DIODE 1SS133T-77	
T602	† 1-431-595-11	TRANSFORMER CONVERTER SRT DT-259A		D716	8-719-991-33	DIODE 1SS133T-77	
T801	1-437-090-31	HDT		D717	8-719-054-81	DIODE 1SS292T-77	
T802	† 1-453-200-11	TRANSFORMER ASSY, FLYBACK (MX-1741/U2B) (KV-21C4B/21C4D/21C4E/21C4K/21C4R)		D718	8-719-991-33	DIODE 1SS133T-77	
	1-453-199-11	TRANSFORMER ASSY, FLYBACK (MX-1741/U2A) (KV-21X4A/21X4B/21X4D/21X4E/21X4K/21X4L/21X4R/21X4U)		D719	8-719-054-81	DIODE 1SS292T-77	
< THERMISTOR >				D723	8-719-991-33	DIODE 1SS133T-77	
TRP601	† 1-809-827-11	THERMISTOR, POSITIVE		D724	8-719-054-81	DIODE 1SS292T-77	
< TUNER >				< CRT SOCKET >			
TU101	1-693-340-11	TUNER/VIF (FR) (KV-21C4B/21X4B)		J701	† 1-526-990-21	SOCKET, CRT	
	1-693-339-11	TUNER/VIF (AEP) (KV-21C4D/21C4E/21C4K/21C4R/21X4A/21X4D/21X4E/21X4K/21X4L/21X4R)		< COIL >			
	1-693-339-11	TUNER/VIF (UK) (KV-21X4U)		L702	1-408-425-00	INDUCTOR 220UH	
				L703	1-535-303-00	LEAD, JUMPER (5.0MM)	
				L704	1-535-303-00	LEAD, JUMPER (5.0MM)	

C	H1	H2
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REF.NO.	PART NO.	DESCRIPTION	REMARK
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< TRANSISTOR >

Q701	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q703	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q704	8-729-906-70	TRANSISTOR BF871-127	
Q705	8-729-906-70	TRANSISTOR BF871-127	

Q706	8-729-906-70	TRANSISTOR BF871-127	
Q707	8-729-200-17	TRANSISTOR 2SA1091-0	
Q708	8-729-200-17	TRANSISTOR 2SA1091-0	
Q709	8-729-200-17	TRANSISTOR 2SA1091-0	

< RESISTOR >

R700	1-202-549-00	SOLID	100	20%	1/2W
R701	1-249-417-11	CARBON	1K	5%	1/4W
R702	1-249-417-11	CARBON	1K	5%	1/4W
R705	1-535-143-11	LEAD, JUMPER (10.0MM)			
R706	1-249-399-11	CARBON	33	5%	1/4W

R707	1-249-401-11	CARBON	47	5%	1/4W
R708	1-247-815-91	CARBON	220	5%	1/4W
R709	1-247-815-91	CARBON	220	5%	1/4W
R710	1-247-815-91	CARBON	220	5%	1/4W
R711	1-249-417-11	CARBON	1K	5%	1/4W

R714	1-249-417-11	CARBON	1K	5%	1/4W
R715	1-249-417-11	CARBON	1K	5%	1/4W
R716	1-249-417-11	CARBON	1K	5%	1/4W
R717	1-260-105-11	CARBON	3.3K	5%	1/2W
R718	1-260-105-11	CARBON	3.3K	5%	1/2W

R719	1-260-105-11	CARBON	3.3K	5%	1/2W
R720	1-215-923-00	METAL OXIDE	10K	5%	3W F
R721	1-215-923-00	METAL OXIDE	10K	5%	3W F
R722	1-215-923-00	METAL OXIDE	10K	5%	3W F
R723	1-535-143-11	LEAD, JUMPER (10.0MM)			

R724	1-202-814-11	SOLID	33K	10%	1/2W
R725	1-202-846-00	SOLID	470K	10%	1/2W
R729	1-216-350-11	METAL OXIDE	1.2	5%	1W F
R730	1-249-410-11	CARBON	270	5%	1/4W
R731	1-247-815-91	CARBON	220	5%	1/4W

R732	1-249-410-11	CARBON	270	5%	1/4W
R734	1-247-815-91	CARBON	220	5%	1/4W
R735	1-247-815-91	CARBON	220	5%	1/4W
R736	1-247-815-91	CARBON	220	5%	1/4W
R744	1-260-103-11	CARBON	2.2K	5%	1/2W

R745	1-260-103-11	CARBON	2.2K	5%	1/2W
R746	1-260-103-11	CARBON	2.2K	5%	1/2W

< VARIABLE RESISTOR >

RV702	1-241-656-21	RES, ADJ, METAL FILM 110M	
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*A-1646-145-A H1 BOARD, COMPLETE

(KV-21C4B/21C4D/21C4E/
21C4K/21C4R)

*A-1646-148-A H1 BOARD, COMPLETE

(KV-21X4A/21X4B/21X4D/21X4E/
21X4K/21X4L/21X4R/21X4U)

< CAPACITOR >

C900	1-102-114-00	CERAMIC	470PF	10%	50V
C901	1-102-114-00	CERAMIC	470PF	10%	50V

REF.NO.	PART NO.	DESCRIPTION	REMARK
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C906	1-535-303-00	LEAD, JUMPER (5.0MM)	
C907	1-535-303-00	LEAD, JUMPER (5.0MM)	
C910	1-130-489-00	FILM 0.033MF	5% 50V

C911	1-130-489-00	FILM 0.033MF	5% 50V
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< CONNECTOR >

CN906	*1-564-512-11	PLUG, CONNECTOR 9P	
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< DIODE >

D908	8-719-109-89	DIODE RD5.6ESB2	
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< JACK >

J900	1-764-606-11	JACK	
J902	0-552-060-00	AUDIO-VIDEO CONNECTOR	

< COIL >

L900	1-408-409-00	INDUCTOR	10UH
L901	1-408-409-00	INDUCTOR	10UH
L902	1-408-409-00	INDUCTOR	10UH
L903	1-408-409-00	INDUCTOR	10UH
L904	1-408-409-00	INDUCTOR	10UH

< RESISTOR >

R904	1-535-303-00	LEAD, JUMPER (5.0MM)	
R905	1-535-303-00	LEAD, JUMPER (5.0MM)	
R909	1-249-437-11	CARBON	47K 5% 1/4W
R910	1-249-437-11	CARBON	47K 5% 1/4W

*A-1646-146-A H2 BOARD, COMPLETE

(KV-21C4B/21C4D/21C4E/
21C4K/21C4R)

*A-1646-149-A H2 BOARD, COMPLETE

(KV-21X4A/21X4B/21X4D/21X4E/
21X4K/21X4L/21X4R/21X4U)

< CAPACITOR >

C904	1-104-665-11	ELECT	100MF 20% 25V
C905	1-126-964-11	ELECT	10MF 20% 50V

< CONNECTOR >

CN907	*1-564-519-11	PLUG, CONNECTOR 4P	
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< DIODE >

D901	8-719-302-45	DIODE SEL1210S-D	
	*4-203-258-01	HOLDER, LED (D901)	

< IC >

IC900	8-742-014-10	RECEIVER HIC SBX1981-51	
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< RESISTOR >

R900	1-249-417-11	CARBON	1K 5% 1/4W
R901	1-249-408-11	CARBON	180 5% 1/4W
R908	1-249-401-11	CARBON	47 5% 1/4W

H3

The components identified by shading and marked **†** are critical for safety.
Replace only with the part number specified.

Les composants identifiés par une trame et une marque **†** sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

REF.NO.	PART NO.	DESCRIPTION	REMARK
	*A-1646-147-A	H3 BOARD, COMPLETE ***** (KV-21C4B/21C4D/21C4E/ 21C4K/21C4R)	
	*A-1646-150-A	H3 BOARD, COMPLETE ***** (KV-21X4A/21X4B/21X4D/21X4E/ 21X4K/21X4L/21X4R/21X4U)	
< CONNECTOR >			
CN908	*1-564-518-11	PLUG, CONNECTOR 3P	
< RESISTOR >			
R911	1-247-843-11	CARBON 3.3K 5% 1/4W	
R912	1-249-429-11	CARBON 10K 5% 1/4W	
R913	1-247-843-11	CARBON 3.3K 5% 1/4W	
R914	1-249-429-11	CARBON 10K 5% 1/4W	
< SWITCH >			
S900	1-692-979-11	SWITCH, TACTILE	
S901	1-692-979-11	SWITCH, TACTILE	
S902	1-692-979-11	SWITCH, TACTILE	

REF.NO.	PART NO.	DESCRIPTION	REMARK
MISCELLANEOUS (KV-21C4) *****			
†	1-411-922-11	COIL, DEGAUSSING	
	1-452-032-00	MAGNET, DISC; 10MM Ø	
	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM Ø	
	1-452-277-00	MAGNET, BMC	
†	1-453-200-11	TRANSFORMER ASSY, FLYBACK (NX-1741/U2B)	
	1-504-570-11	SPEAKER (7.5X13CM)	
†	1-540-006-22	CAP ASSY, HIGH-VOLTAGE	
†	1-571-433-21	SWITCH, PUSH (AC POWER)	
†	1-590-501-11	CORD, POWER (WITH NOISE FILTER)	
	1-693-340-11	TUNER/VIF (FR) (KV-21C4B)	
	1-693-338-11	TUNER/VIF (AEP) (KV-21C4D/21C4E/ 21C4K/21C4R)	
†	8-738-783-05	PICTURE TUBE (SD-169) (A51JXH61X)	
†	8-451-295-43	DEFLECTION YOKE (Y21PFA2)	

ACCESSORIES AND PACKING MATERIALS (KV-21C4) *****			
	*4-042-476-01	BAG, PROTECTION	
	*4-033-050-01	CUSHION (UPPER) (ASSY)	
	*4-033-049-01	CUSHION (LOWER) (ASSY)	
	*4-033-051-11	INDIVIDUAL CARTON	
	4-203-855-51	MANUAL, INSTRUCTION (KV-21C4B) (GERMAN/ITALIAN/DUTCH/FRENCH)	
	4-203-855-11	MANUAL, INSTRUCTION (KV-21C4D) (DUTCH/GERMAN/TURKISH/ENGLISH)	
	4-203-855-71	MANUAL, INSTRUCTION (KV-21C4E) (SPANISH/PORTUGUESE/HUNGARIAN)	
	4-203-855-91	MANUAL, INSTRUCTION (KV-21C4K/21C4R) (CZECH/ENGLISH/POLISH/ RUSSIAN/BULGARIAN)	
REMOTE COMMANDER *****			
	1-473-194-11	COMMANDER, STANDARD TYPE (RM-836)	

REF.NO.	PART NO.	DESCRIPTION	REMARK
MISCELLANEOUS (KV-21X4) *****			
†	1-406-828-11	COIL, DEGAUSSING	
	1-452-032-00	MAGNET, DISC; 10MM Ø	
	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM Ø	
†	1-453-199-11	TRANSFORMER ASSY, FLYBACK (NX-1741/U2A)	
	1-544-727-11	SPEAKER (7.5X13CM)	
†	1-571-433-21	SWITCH, PUSH (AC POWER)	
†	1-765-286-11	CORD, POWER (KV-21X4A/21X4B/21X4D/ 21X4E/21X4K/21X4R)	
†	1-776-204-11	CORD, POWER (FILTER) (KV-21X4L/21X4U)	
	1-693-338-11	TUNER/VIF (AEP) (KV-21X4A/21X4D/21X4E/ 21X4K/21X4L/21X4R)	
	1-693-340-11	TUNER/VIF (FR) (KV-21X4B)	
	1-693-339-11	TUNER/VIF (UK) (KV-21X4U)	
†	8-738-784-05	PICTURE TUBE (SD-169) (A51JXH61X)	
†	8-451-295-45	DEFLECTION YOKE (Y21PFA2BA)	
†	8-738-783-71	ITC	

<u>REF.NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>REMARK</u>	<u>REF.NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>REMARK</u>
ACCESSORIES AND PACKING MATERIALS (KV-21X4)							

*4-039-905-02		BAG, PROTECTION					
*4-044-002-01		CUSHION (UPPER) (ASSY)					
*4-044-003-01		CUSHION (LOWER) (ASSY)					
*4-044-004-11		INDIVIDUAL CARTON					
4-203-823-41		MANUAL, INSTRUCTION (KV-21X4A) (ITALIAN)					
4-203-823-51		MANUAL, INSTRUCTION (KV-21X4B)					
		(FRENCH/ITALIAN/GERMAN/DUTCH)					
4-203-823-11		MANUAL, INSTRUCTION (KV-21X4D)					
		(GERMAN/GREEK/DUTCH/TURKISH/ENGLISH)					
4-203-823-71		MANUAL, INSTRUCTION (KV-21X4E) (SPANISH)					
4-203-823-81		MANUAL, INSTRUCTION (KV-21X4E)					
		(PORTUGUESE/FINNISH/SWEDISH/					
		DANISH/NORWEGIAN/HUNGARIAN)					
4-203-823-91		MANUAL, INSTRUCTION (KV-21X4K/21X4R)					
		(CZECH/ENGLISH/POLISH/					
		RUSSIAN/BULGARIAN)					
4-203-823-61		MANUAL, INSTRUCTION (KV-21X4L/21X4U)					
		(ENGLISH)					
REMOTE COMMANDER							

1-473-194-11		COMMANDER, STANDARD TYPE (RM-836)					
